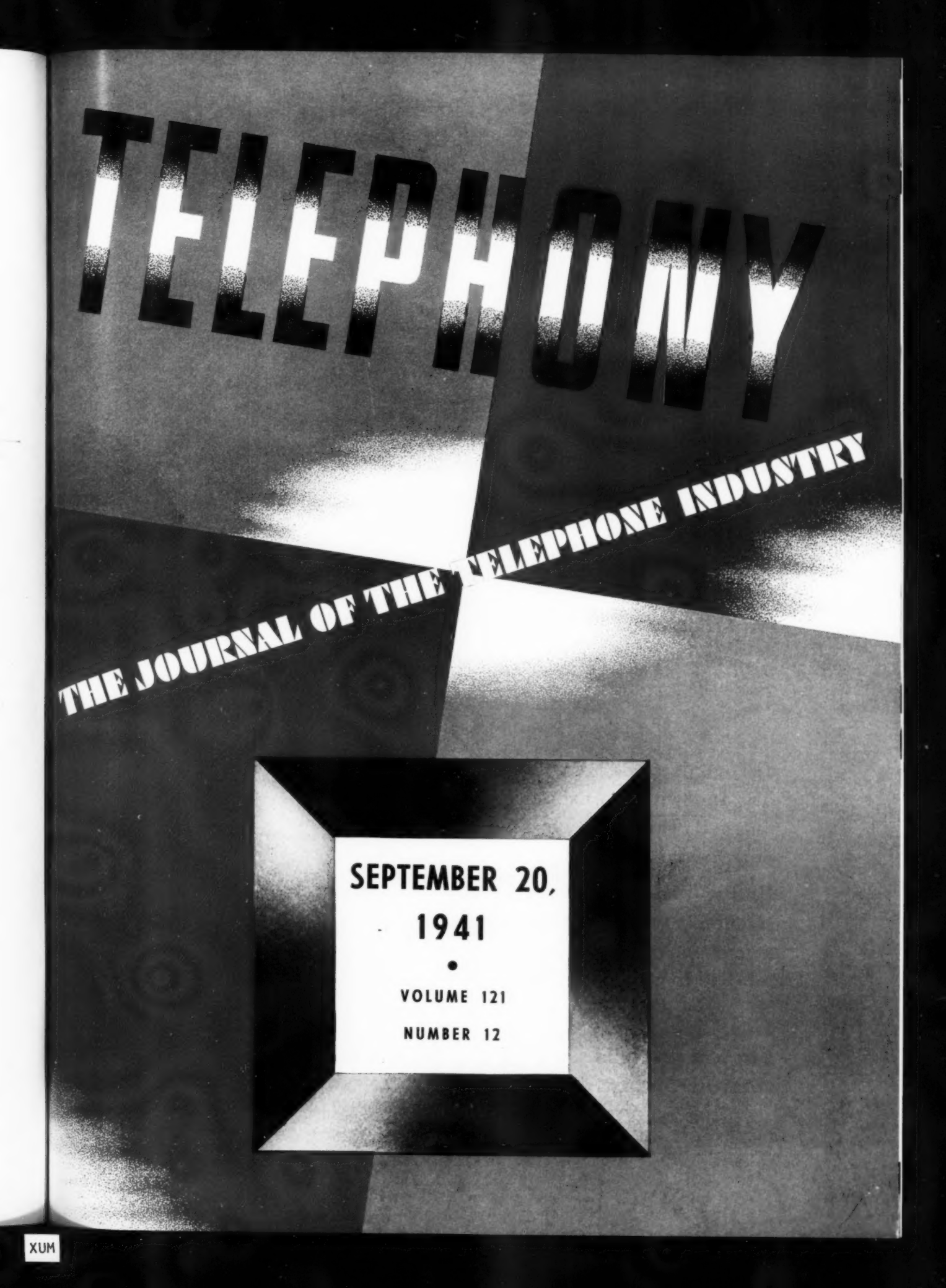

TELEPHONY
THE JOURNAL OF THE TELEPHONE INDUSTRY
SEPTEMBER 20, 1941
VOLUME 121
NUMBER 12

XUM

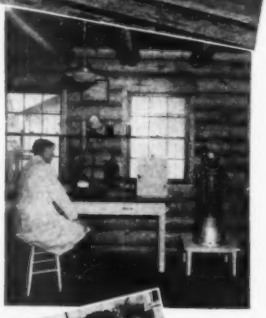
"SHELL ROT" PROBLEM *Solved!*

New FULL LENGTH Treatment of Northern White Cedar Poles prevents permanently any sapwood decay or attacks of termites.

Complete submersion is employed — in a phenol preservative solution many times more toxic than other known preservatives. It is non-corrosive and odorless.

The poles come to you clean, dry, and with the natural color retained. They may be painted or stained, if desired.

Entire operation — mixing of solution, application, and testing amount of preservative absorbed — is Laboratory controlled.



THE views here show some of the equipment used in the new Full-Length treatment — tanks for mixing and storing the preservative solution — vat in which poles are submerged and the laboratory which controls operations.

"Still in the Lead"

Interesting, important details sent on request.

PAGE AND HILL CO.

MINNEAPOLIS, MINNESOTA — 50 CHURCH STREET, NEW YORK, N. Y.

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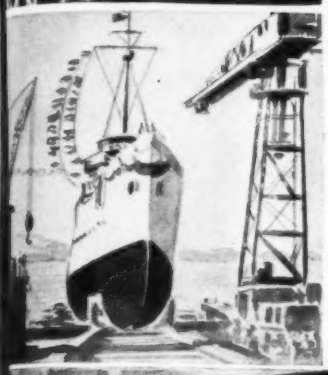
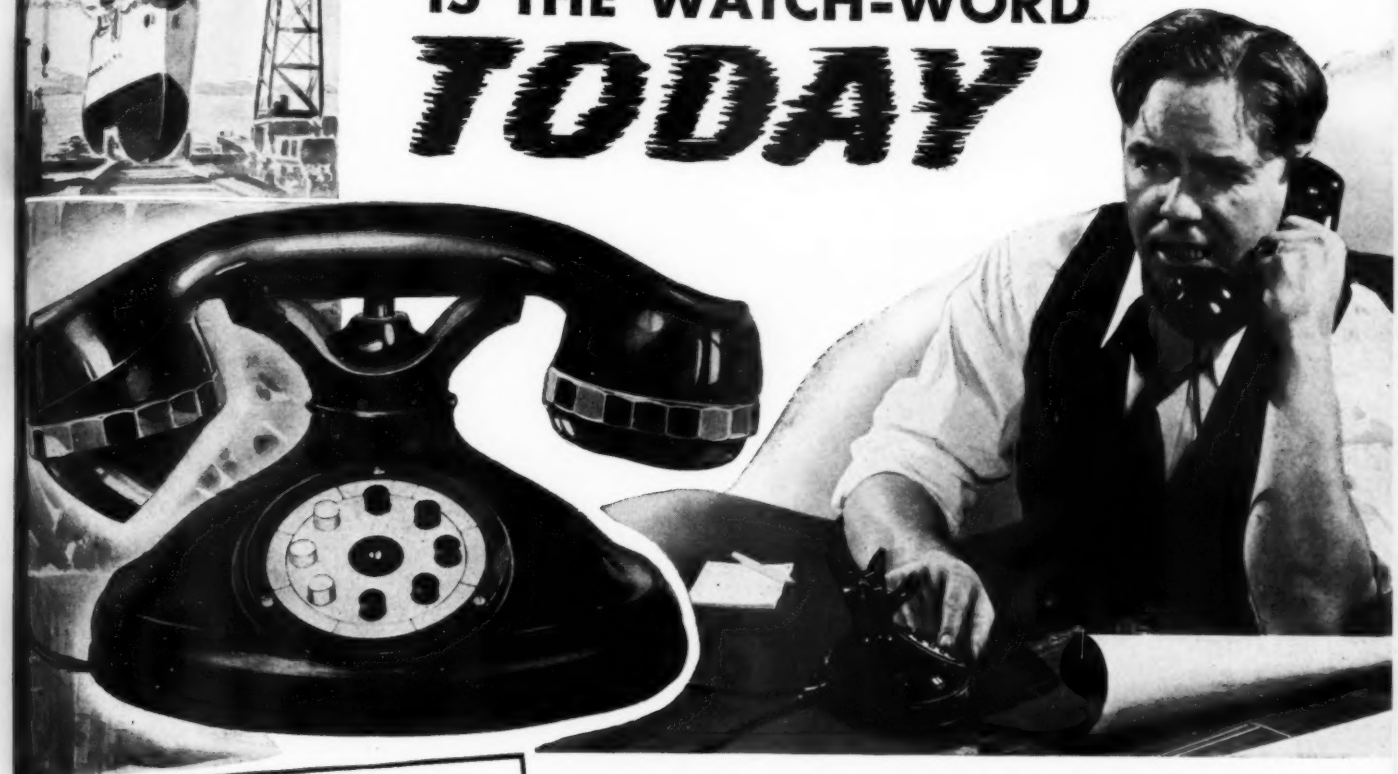
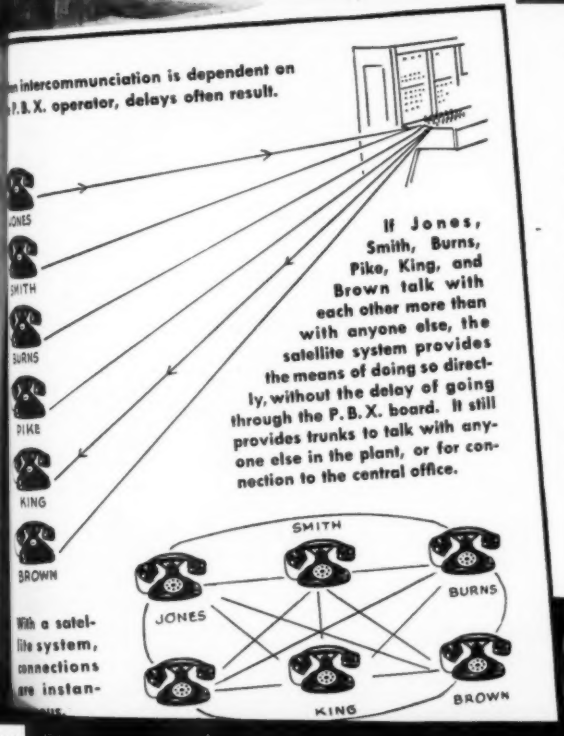


SPEED
IS THE WATCH-WORD
TODAY





...n intercommunciation is dependent on ...P.B.X. operator, delays often result.

If Jones, Smith, Burns, Pike, King, and Brown talk with each other more than with anyone else, the satellite system provides the means of doing so directly, without the delay of going through the P.B.X. board. It still provides trunks to talk with anyone else in the plant, or for connection to the central office.

With a satellite system, connections are instan...

SELL STROMBERG-CARLSON CONVENIENCE SYSTEMS AS P. B. X. SATELLITES

Manufacturing plants rushing to meet the exacting demands of defense orders offer a ready market for Stromberg-Carlson Convenience Systems.

Used as a satellite system working into a P.B.X. switchboard, these systems are particularly useful for intercommunication between departments that must be in frequent contact, as the delay of going through the P.B.X. operator is eliminated.

Trunks can be furnished in three ways —first, individual trunks to each station connected with P.B.X. and one common trunk; two or three common trunks to switchboard; one or two common trunks divided between outside and P.B.X. This gives the satellite group 24-hour service when working overtime.

A typical example is the Stromberg-Carlson 7-6 System. The 8 buttons on each telephone have the following functions: 1 button controls an individual private trunk from every local station to the P.B.X.; 1 button controls a trunk which is common to all 6 stations, also terminating at the P.B.X.; 1 button holds either trunk, and 5 buttons control the individual 6 stations for intercommunication between themselves, wholly independent of the P.B.X. switchboard.

Write for descriptive Bulletins and you will see how Stromberg-Carlson Convenience Systems can bring you added revenue now.

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Telephon

FORTY-FOURTH YEAR

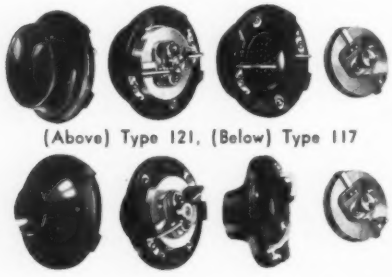
an advertisement of the KELLOGG SWITCHBO

SUPPL

KELLOGG IDEAS H

Now You Can Standardize on the Non-Positional Transmitter for All Types of Phones

These one-piece molded Bakelite transmitter front and mouthpiece units were developed so that telephone men could standardize on one transmitter to fit all types of Kellogg wall sets, desk stands and

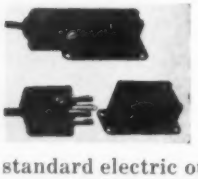


(Above) Type 121, (Below) Type 117

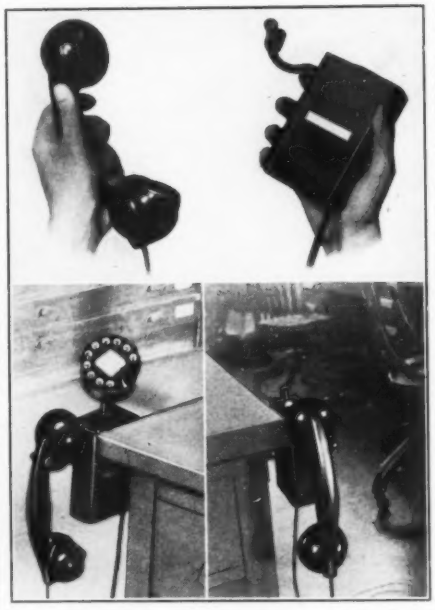
Masterphones. The same units also fit all Western Electric wall sets and desk stands. A special back plate can be used to adapt these transmitters to other makes. Available in two styles, giving a choice of large or small mouthpiece openings. Both come equipped with the famous Non-Positional transmitter.

Subscribers Rent Telephone Outlets

The public, recognizing the convenience of portable radios, fans, etc., now wants portable telephones. These outlets and plugs are ideal for the purpose. They bring 25c to 50c per month per outlet and one or more Combination portable Masterphones can be easily sold at the regular extension rate. Available in the flush- and surface-mounting types for 2 or 4 conductors. Flush type fits standard electric outlet box. Plug prongs are polarized and non-reversible.



EASY TO INSTALL SIDE-MOUNTING MASTERPHONES



Installers sometimes find it difficult to satisfy subscribers who demand installations which are difficult to make with the usual desk or wall sets. Now the installer's task is simplified because these Side-Mounting Masterphones were designed especially for that job. They are small, compact and fit anywhere and everywhere. They have a universal bracket which provides over 52 different mounting arrangements so that the subscriber can have his telephone exactly where it will be of the greatest convenience to him.

These phones mount equally well on the right or left side of a desk, clear overhanging table tops, moldings, extended shelves, paneled walls, fit recessed cabinets, etc. They are available for magneto, common battery manual and dial service as complete talking sets, or, as complete talking and ringing sets when used with desk set boxes or extension bells. Also available with built-in switching key for Inter-Comm. Bulletin 722 gives all details.

Many Uses For Th

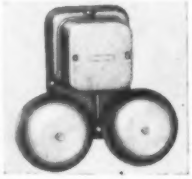
Kellogg Inter-Comm Systems furni simple, flexible arrangement that deli excellent service for small busine schools, hospitals, libraries, apartme residences, etc. They come in two si one for any number of phones up to and the other having a capacity up t stations.

This system is intended for use w trunks to common battery manual changes but can also be furnished to tr into dial or magneto main exchan Each local station has only two piece equipment: a wall or desk set and a box equipped with a buzzer.

The system is of the selective talk selective ringing type, thereby assur complete flexibility and ready adapta to any of the users' requirements. number of conversations that can be ried on at one time with this system limited only by the number of pairs telephones. Additional stations can added from time to time as needed up the ultimate capacity.

No attendant is required on station station Inter-Comm calls or on trunk c nections to the main exchange. The pa

EXTENSION BELLS USEFUL FACTORIES, WAREHOUSES, ET



The Popular 65 Type Outdoor, Loud-ringing Weatherproof Bell.

These extensi bells are especia useful for taxi-stan coal yards, lumb yards, police and a larms, railro yards, power hous oil fields, mines, qu ries, docks, gara construction cam army camps, e where loud-ringing and weather resist qualities are necessary. They operate p fectly under any climatic condition, give years of maintenance-free servi The rugged six-inch steel gongs produc loud clear ring. They can he had w either straight line or harmonic ring with or without condensers.

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Facts

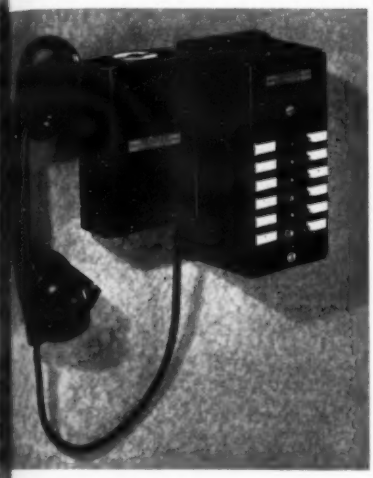
EXTRA EDITION

SUPPLY COMPANY

Chicago, September 20, 1941

HELP PHONE MEN

...er-Comm System



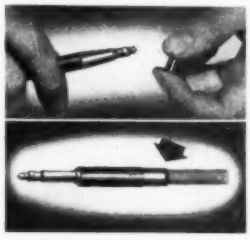
...ng to call another Inter-Comm sta... merely presses the key which causes ringing of the desired phone and ...s the connection. An outgoing trunk ... is made by pressing a key button ...h connects the calling party direct to ...main exchange. Write for Bul. 207-A.

...Modern Key Box With Beautiful, Pleasing Design

...mall size and pleasing, modern design ...bine to make this attractive Key Box ...deal installation for any location. The ... of molded Bake... will retain its rich ...k lustre perma... This Key Box ... be mounted in ...position—flat, up... or on its side. ...omes in two mod... one for switch... a telephone to ...er of two lines ... the other for ...tching a telephone ...either of three lines. Bulletin 219 de... ...bes how all the equipment is mounted ...the housing for easy accessibility.

RUBBER PLUG CUSHIONS MAKE CORDS LAST LONGER

These rubber plug cushions protect the plug seat from the impact of the plug and also prevent rough and sharp edges from developing on the plug base. Thus the cords are protected from wear and will not have to be cut back as often as before. These cushions also serve to eliminate the noise of falling plugs. They are easily put on with the aid of a cone-shaped tool (shown in top picture), which is removed when the cushion is in place.



Kellogg's Priorities Service Department . . .

has been established to help you with your materials problems. Its job is to keep abreast of all developments concerning materials and Preference Ratings. The advice of this department on any problem is yours for the asking. Write direct or put your problem up to your Kellogg Representative.

More Efficient Methods, Better Products Are Result of Close Cooperation

That Kellogg has pioneered more telephone and switchboard developments than any other manufacturer is a generally accepted fact. That the telephone men themselves have been the inspiration for many of these developments, however, may not be quite so well known.

Many important improvements have resulted from general discussions. Sometimes an exchange manager would say to his Kellogg representative, "I wonder why someone doesn't invent a better way to perform this operation"; or, "Several of my subscribers seem to have problems that the available apparatus won't solve."

That's the clue! It has often been the starting point for a major development by the Kellogg research laboratory and engineering department. But first the customer's problems are thoroughly studied so that each new product and each new improvement is made from the operating man's viewpoint.

The products shown here are a few examples of Kellogg's understanding and appreciation of a need—of months and sometimes even years spent in making something to answer that need and to enable the telephone man to operate more profitably and more economically.

Take these little rubber plug cushions, for example. They cost less than a half cent a piece. Yet, Kellogg investigated all types of rubber and rubber compounds before concluding the design of these little money savers. Their purpose is to extend the life of switchboard cords, plugs and plug seats.

Side-Mounting Masterphones were developed so that installers could locate telephones where subscribers want them and where space will not permit the use of a regular wall phone.

Bakelite transmitter front and mouthpiece combinations now make it possible to standardize on the famous Masterphone NON-POSITIONAL transmitter for all types of telephones.

Thus, Kellogg's policy of constantly seeking better ways of doing things benefits the entire industry and adds to the value of your telephone service.

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Specification

CABLE SPLICING SUPPLIES

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Examples

OF THE COMPLETENESS OF

LEICH'S

LINE OF MATERIALS

"Know how" and experience are essential to cable splicing. "Knowing what" and experience are essential to the furnishing of splicer's supplies. The Leich organization has the knowledge, the experience and the materials for all phases of telephone construction and maintenance—including cable splicing. For service, quality and assured satisfaction, mark your next requisition "Buy from Leich".

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LEICH SALES CORPORATION

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NO LOW CELLS

mean longer life — lower maintenance

Philco Batteries eliminate low cells. That means low operating costs . . . lower maintenance . . . longer life . . . dependable, trouble-free service. That's what Philco Batteries can bring to your exchange . . . just as they have to leading telephone exchanges the world over! Let our engineers help solve your problems . . . write us.

Only PHILCO gives you Floté in Steel-Glass BATTERIES

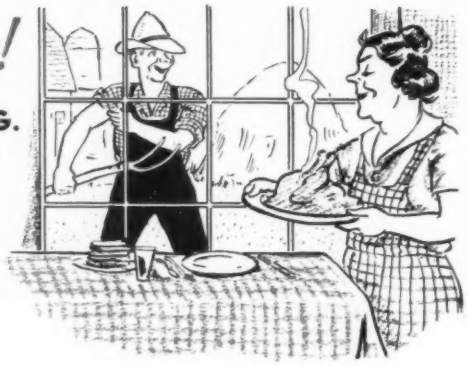
PHILCO, Storage Battery Division, Trenton, N. J.

Just the Thing!

FOR SPLICING 12 B.W.G. RUSTY IRON WIRE —

Nicopress

SLEEVES No. 2-102C



The One Best Way to Splice Rusty 12 B.W.G. (.109) Iron Wire is with Nicopress No. 2-102C Sleeves.

Whether you have a large or small amount of this kind of wire to be spliced you'll make big savings by doing it the Nicopress way. Order some No. 2-102C Nicopress Sleeves from your jobber today. Try them. You'll be mighty pleased with results.

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Canadian Mfr.—N. Slater Co., Ltd., Hamilton, Ont.
Export Distributor—International Standard Electric Corp., New York, N. Y.

MAKE IT A *Nicopress* SPLICE

Telephony

September 20, 1941

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XUM

A-10 REPAIR PRIORITY IS *Inadequate for Industry*

By FRANCIS X. WELCH

"Telephony's" Washington Correspondent

ALL HOPE should not be abandoned that the Priorities Division of OPM has said the last word on special telephone priorities with the promulgation of the "repair" order of September 9, published in TELEPHONY, September 13, page 17. (See "Priority Primer" on page 12 and the simplified interpretation of A-10 Priority Rating Order P-22 on page 10.)

The scope of this order, confined as it is to "breakdown and imminent breakdown" with a "minimum inventory" to prevent the same, is disappointing. There is no use trying to put a good face on the subject. There is no use trying to interpret the phrases any more generously than their meaning plainly implies.

In other words, under this repair rating of A-10, telephone companies would *not* be entitled to order items which might be required to maintain the present *standard* of service or to prevent a "breakdown" in the sense of a "let-down" from the present high standard of service. Your correspondent has heard such speculation among telephone men. But we might as well admit that it is wishful thinking.

The OPM order means plainly what it says. It applies to the physical wearing out of some part now in use. It does not apply to an abstract standard of service or facilities which might theoretically be required to maintain that standard.

The order is disappointing because there is good reason for OPM to be more liberal in giving the telephone companies priority. This is emphasized by the repair and maintenance rating which the gas, electric, and water companies are expected to receive in the near future. The order may be out by the time these lines appear in print, but your correspondent understands that provision is to be made for some materials for some new work and "consumable materials" (such as solder, acetylene gas, etc.). All this in addition to routine repair and maintenance.

If this turns out to be so, it would seem to indicate that the problems of the power companies are understood by the OPM, but *not* the problems of the telephone companies. Obviously, a telephone company has just as much need for solder as a power company.

Probably the reason why the power companies have been able to put their message across is that there is within OPM a special power division headed by Julius A. Krug. Mr. Krug is not an ex-utility company man (and hence escapes any stigma, from the New Deal point of view, which might attach to that class). But he is a former TVA power engineer and well understands the operating problems of his industry, whether publicly-owned or privately-owned and operated.

There is no communications coordinator within OPM. This means that the telephone companies have had to make all their representations from the outside. Don't get the situation wrong. The industry's representatives have done a swell job, trying to make OPM conversant with the problems of the telephone industry.

The real trouble is that the same OPM man doesn't stay at the same desk long enough. There was good reason to believe that OPM had already authorized a repair and maintenance priority order which would have given liberal treatment to the telephone industry among others. Then along came the SPAB shakeup, and the order (which had been signed by former Priorities Director Stettinius) was withdrawn and reexamined.

Donald Nelson, the new boss, came on the job cold, as did a number of his subordinates. They had no special knowledge of the telephone industry's problems and the telephone industry had nobody on the inside (such as Julius Krug) to look out for them. Result was that OPM, in its haste to get something done, issued the order of September 9—which is just a plain lemon.

Well, let's take a more hopeful point of view. Obviously, the OPM realized that there was more to the problem than reached the eye. In releasing its order on September 9, it stated:

> The present order is designed primarily to protect industry against sudden breakdowns and is regarded as an interim measure. The entire inventory problem is to be studied further with a view to providing broader priority assistance. It is felt, however, that the present plan will keep the essential industries covered running on their normal basis and will prevent serious interruption to defense production by giving producers a simple method for obtaining vital repair parts.

The day after this order was promulgated, Donald Nelson announced that there would be a prompt and intensive inventory of the special needs of all industries, both military and civilian. So we see that there is considerable basis for hope that OPM will re-examine the representations of the telephone industry's contact men.

(Please turn to page 11)

XUM

How A-10 Priority Applies To All Telephone Groups

By R. C. RENO
Managing Editor

SINCE THE A-10 repair priority rating order, designated P-22, was released September 9 by the Office of Production Management, TELEPHONY has received numerous inquiries regarding the steps that are necessary for operating telephone companies, jobbers, and manufacturers to apply provisions of the priority rating.

In order to present this information to the above groups, we have had conferences with officials of the Chicago office of OPM who have willingly aided us in performing this service to the industry.

To more easily understand the following comments, it is suggested that readers have before them a copy of the P-22—A-10 priority order published on page 17 of the September 13 issue of TELEPHONY.

As stated in the P-22 order, the purpose of the rating is to permit 20 designated essential industries, *including telephone and telegraph communications*, to obtain critical materials to repair existing equipment. Qualified enterprises (named producers in the P-22 order) in these industries are given an A-10 rating on needed repair materials and for emergency inventories of such materials. Suppliers of such repair parts may re-extend the A-10 rating extended to them from the producers.

A *producer*, as designated in the order, means the producer of the material or services covered by the rating. In the case of the telephone industry, producers would be operating telephone companies.

A *supplier*, as designated in the order, means a jobber or manufacturer of repair materials needed by operating telephone companies.

Material is defined by the order as any commodity, equipment, accessories, parts, assemblies or products of any kind.

Repairs means only repairs needed because of an actual or imminent breakdown, from whatever cause, of an operating company's property or equipment. While the order does not list any causes of a breakdown or imminent breakdown, it is assumed that it means breakdown resulting from acts of nature (such as fire, storms, floods, etc.), from over-age of property or equipment, from accident, from sabotage or from war, etc.

Emergency inventory, as defined by the order, means the maintenance of a minimum inventory of material required to provide for repairs to meet an actual or imminent breakdown, from whatever cause, of operating companies' property or equipment. It is a well-known fact that the majority of operating telephone companies carry only small stocks of materials needed to take care of normal repairs to their equipment. Therefore, it is suggested that no effort be made to carry larger inventories than has been usual for normal needs.

As a result of our conferences with the Chicago OPM office, we are listing below in "one, two, three order," our interpretation of what operating telephone companies, jobbers and manufacturers must do in order to apply the A-10 repair priority rating:

I. *Telephone operating companies* (called producers in Order P-22) to apply the A-10 rating must—

(1) Ascertain which materials and supplies it is ordering are required: (a) to repair an actual breakdown or imminent breakdown of its property or equipment; (b) to maintain a minimum emergency stock of such items required to meet an actual or imminent breakdown of its property or equipment, from whatever cause; or (c) to be physically incorporated in other material which is to be used for repairs or which is required for the emergency stock.

(2) Issue purchase orders listing the materials and supplies required for the above named purposes *only*. Such orders must be at least in duplicate and endorsed with the following statement on *all* copies:

> "Purchase Order for Repair or Emergency Inventory — Preference Rating A-10 under Preference Rating Order P-22"

Such endorsement must be signed by a responsible official of the company designated for such purpose.

(3) Send the originals of such purchase orders to the jobbers or manufacturers of such materials.

(4) Establish and maintain a separate file for duplicate copies of such purchase orders. Telephone companies must retain copies of these orders (segregated from all other purchase orders) for two years from the date thereof for inspection by authorized representatives of OPM.

II. *Telephone jobber* (named supplier in Order P-22) to apply the A-10 rating must—

(1) Upon receiving orders for repair or emergency inventory materials from an operating telephone company, *provided he (the jobber) needs to purchase the materials so ordered to make deliveries*, must issue purchase orders covering such materials *only*. Each purchase order must be at least in duplicate and endorsed with the following statement on *all* copies:

> "Purchase order for Material required to fill a duly rated order for Repair or Emergency Inventory. This purchase order bears Preference Rating A-10 under Preference Rating Order P-22."

Such endorsement must be signed by a responsible official of the jobber designated for such purpose.

(2) Send the originals of such purchase orders to the manufacturers of the materials needed.

(3) Establish and maintain a separate file for endorsed duplicate copies of such purchase orders. Jobbers also must keep copies of these orders (segregated from all other purchase orders) for two years from the date thereof for inspection by authorized representatives of OPM.

III. *Manufacturers* (also named Suppliers in Order P-22) to apply the A-10 rating for raw materials must—

(1) Upon receiving orders for repair or emergency inventory materials from a jobber or operating company, *provided he (the manufacturer) needs to purchase raw materials to make delivery of such materials*, must issue purchase orders covering such materials *only*. Each

purchase order must be at least in duplicate and endorsed with the following statement on all copies:

> "Purchase order for Material required to fill a duly rated order for Repair or Emergency Inventory. This purchase order bears Preference Rating A-10 under Preference Rating Order P-22."

Such endorsement must be signed by a responsible official of the manufacturer designated for such purpose.

(2) Send the originals of such purchase orders to the sources of supply of raw materials required for the manufacture of the materials ordered by the jobber or operating company.

(3) Establish and maintain a separate file for endorsed duplicate copies of such purchase orders. Manufacturers also must keep copies of these orders (segregated from all other purchase orders) for two years from the date thereof for inspection by authorized representatives of the OPM.

As noted in "The Priority Primer for the Telephone Industry" by Francis X. Welch, on page 10 of this issue, operating telephone companies which had already entered orders for materials which would be qualified for the A-10 repair priority rating before that order was handed down on September 9, which are still unfilled because of shortages, are not entitled to retroactive benefit of the priority rating. They may, however, become automatically entitled to the rating by simply cancelling the original orders and entering new ones. It is assumed that jobbers and manufacturers holding back orders for repair items, unfilled because of shortages of materials, may (a) return such orders to operating companies and have them re-date the orders, or (b) have the customers make out new orders for the repair materials which would be currently dated.

Many inquiries coming to TELEPHONY question whether or not small miscellaneous tools (such as pliers, hammers, blow torches, etc.), essential for repair work, are covered by the A-10 priority rating. Judging by the interpretation we have received it is felt certain that such small tools, which are essential and actually needed to make repairs to telephone property and equipment, are covered by the A-10 rating order.

It should be understood that operating companies, jobbers or manufacturers do not have to apply for or obtain any certificate from the OPM in order to get the A-10 rating under the P-22 repair plan. They simply endorse the statement given above on all copies of their purchase orders covering repair and inventory materials which require the rating. However, priority officials point out that this endorsement is as authentic as an affidavit to the government.

Priority officials also emphasize the fact that the industries covered in the A-10 rating order No. P-22 are expected to carry out the provisions of the order under the honor system. They stated to TELEPHONY that the P-22 rating order, in their opinion, grants many privileges and in order to protect their status those receiving the priority should take every precaution not to abuse the rights permitted under it.

The penalty for falsification, misstatement, or misuse of the A-10 rating is the withdrawal of the privilege of using the rating or denial of scarce materials under government allocation, with the provision that the director of priorities may also take any other action deemed appropriate including the making of a recommendation for prosecution under Section 35-A of the Criminal Code (18 U.S.C. 80).

The P-22 order took effect on September 9, 1941, and unless sooner revoked it shall expire on February 28, 1942.

The telephone industry, as a whole, is disappointed that the OPM did not extend the A-10 rating to cover the maintenance and needed expansions of telephone property and equipment. However, it is urged that all units of the industry properly apply the A-10 rating provisions so that the industry can at least be in as good a position as possible under existing conditions to endeavor to continue to meet the great demands made of it by the government and general industry in the present emergency.

It is noted in Priority Director Donald M. Nelson's statement accompanying the P-22 order that the order is designed primarily to protect certain industries against sudden breakdowns and is regarded as an interim measure. Mr. Nelson stated that the entire inventory problem is to be studied further with a view to providing additional priority assistance. It is hoped that Mr. Nelson and other OPM officials will adopt a more sympathetic viewpoint toward telephone service—as they have in connection with other key industries—which is so vital in the successful defense of this country.

A-10 Priority Inadequate

(Concluded from page 9)

As a matter of fact, appointments have already been made and conferences arranged for further study. It may well be that from these conferences a special supplementary order covering the telephone industry will emerge. The special defense committee members of the United States Independent Telephone Association and Bell representatives have left no stone unturned in seeking more equitable treatment for the industry from OPM.

Your correspondent mentions the thought, however, for what it is worth, that the work of these contact groups might be more effective if there were created within the OPM a special coordinator of communications facilities, just as there is already a special coordinator for transportation (Ralph Budd) and a special head for heat and power problems (Julius Krug).

* * *

Incidentally, another OPM priority development in the near future, which especially concerns the electric companies but should be of interest to telephone companies, deals with the Project Rating Plan. This plan has been in operation for some time but has been used very sparingly. Theoretically, it is invoked whenever a contractor is engaged in building a project (whether a power dam or aluminum works, or a Navy yard) which will be used exclusively for defense purposes. When the rating is awarded the contractor is entitled to a high priority for everything he needs to complete the job. There is no fussing around with individual applications.

This writer hears that OPM (probably thanks to Julius Krug again) is working out a plan for extending this to gas and electric companies who are engaged in extending special facilities to defense areas. Thus, if an electric company has been authorized to build and service a special power plant for an aircraft factory or a torpedo works, it would get a project rating for the entire job. There are possibilities here which are roughly parallel to obligations which telephone companies have been required to take on in the past for defense purposes.

XUM

Priority Primer For Telephone Industry

(As of September 15, 1941)

By FRANCIS X. WELCH

THE Priority: What Is It? A priority is a preference given by law to *anyone* who is *unable otherwise* to obtain supplies or equipment for products which are needed for defense purposes or essential public service. If you *can* get the stuff otherwise, or can use fairly satisfactory substitutes, you do not rate a priority no matter *what* you want the material for. (Therefore, it's a good idea to preserve evidence of refusals of your orders, etc., in case the government wants more particulars.)

Priorities are controlled by the Priorities Division of the Office of Production Management (O P M), headed by Donald Nelson in Washington, with regional offices throughout the country (see list of regional offices, TELEPHONY, August 16, p. 12). The degree of preference for any given usage is shown by priority ratings. This indicates how important the OPM thinks the usage is. Generally speaking, direct defense needs or essential services are given "A" ratings, which range from AA (special emergency) to A-10. Civilian usages get "B" ratings (B-1 to B-8). The priority rating determines the *weight* of the preference, not the *kind* of a preference.

There are *seven kinds* of preferences administered by OPM: (1) Blanket Rating; (2) Project Rating; (3) Defense Supplies Rating; (4) Industry-Wide Mandatory Control; (5) Inventory Control; (6) Repair for Essential Industries; (7) Individual Preference Rating.

Different Kinds of Priorities. No. 1, the *Blanket Rating*, applies to one or more companies engaged entirely or almost entirely in direct defense work, such as ship builders, munitions plants, etc. They can get anything they need under a very high rating.

No. 2, the *Project Rating*, is like a Blanket Rating, but is confined to a certain job such as building a power plant for an aluminum works.

No. 3, the *Defense Supplies Rating* plan, enables manufacturers who have a fair amount of defense orders in their shop to get an A-10 rating to obtain supplies and materials they need to fill those orders. It can be used, also, to replenish materials used out of the manufacturer's stock to fill such orders.

No. 4, *Industry-Wide Mandatory*, and No. 5, *Inventory Control*, are special devices for checking on industries which are producing something exceptionally scarce. "Mandatory" industries (designated by the letter "M"), such as aluminum production, have their entire output taken over by the government and distributed under a special formula for each industry so controlled.

"Inventory" industries, composed of the producers and semi-processors of certain scarce metals, have to file statements with OPM. Also, their customers have to file monthly statements showing compliance with special OPM regulations restricting the traffic in each "inventory" commodity.

No. 6, *Repair for Essential Industries* (rating released September 9), gives an A-10 rating to repair items required by producers and suppliers of *materials* and *services* deemed by OPM to be essential. Operating telephone companies and manufacturers of telephone equipment are included.

No. 7, the *Individual Preference Certificate* is a rating assigned by OPM upon special application for an individual order. Anyone can apply for such a certificate, if he thinks that the use he plans to make of a certain *individual order* should qualify that order for a preference. OPM will decide whether the order is so qualified and issue or refuse to issue a certificate accordingly.

Who Gets Priority? If you are an operating telephone company, forget about Nos. 1, 3, 4, 5 listed above. They do not concern you. In rare cases you might use No. 2, the project rating. You can freely use 6 and 7 in proper cases.

If you are a telephone manufacturing concern, forget Nos. 1, 2, 4, and 5. In proper cases you are qualified to use Nos. 3, 6, and 7.

For an operating company to obtain a *project rating* (No. 2) it would be necessary for it to show that it is installing an entire telephone communications system for such a defense purpose as an Army camp. So far OPM has not extended the project rating for this kind of work, although there may be more liberal use of the project rating in the future.

For an operating company to get an *A-10 preference under "repair for essential industries"* (No. 6), it must be prepared to show that the items are needed "because of an actual or imminent breakdown," or to provide a "minimum inventory of material" required for repairs to meet such a breakdown (See page 10 for simplified interpretation of A-10 Priority Rating Order No. P-22).

An operating telephone company may apply for an *individual preference rating* certificate (No. 7) whenever it is unable, because of the lack of some material, to undertake or complete work which is in any way connected with either the national defense effort or a supplementary industry or essential civilian purposes (Army, Navy, British purchasing, steel mills, defense housing, local building, hospitals, etc.). OPM will decide what rating, if any, your individual preference is entitled to.

A telephone manufacturing concern is entitled to use the *defense supplies rating plan* (No. 3) whenever it is engaged in filling orders of a defense nature or orders, which, themselves, would be entitled to a priority of A-10 or higher. Such manufacturers may also use the *A-10 rating under "repair for essential industries"* to obtain materials to fill the orders of operating telephone companies endorsed to them under that plan. The telephone manufacturing companies may also use the *individual preference rating* the same as the operating telephone companies.

How To Get Priorities? Under the revised OPM order, P-22, operating companies do not have to apply for or obtain a certificate in order to get an *A-10 rating under the "repair plan."* The company simply endorses the following statement on the original and all copies of the purchase order or contract for such

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repair material, signed by a responsible official duly designated for that purpose: *"Purchase Order for Repair or Emergency Inventory-Preference Rating A-10 under Preference Rating Order P-22."*

This endorsement constitutes a certificate to the OPM. There are penalties for abuse of this plan.

In seeking an *individual preference certificate* an operating utility must use Form PD-1, which can be obtained from the OPM or any branch office thereof. Fill out this form in detail, making out as strong a case as you can. Have it notarized and mail it to the OPM Priorities Division in Washington.

When the application arrives at Washington it is routed to a division dealing with the particular kind of material your application calls for. If it is approved after study, the application will be stamped over the signature of Donald M. Nelson and given a rating.

This will be returned to you and constitutes your certificate. Until recently the time required for a decision was at least one month, but OPM hopes to speed that up considerably in the near future.

Operating companies who think they may be entitled to *project ratings* should make special inquiry by correspondence to OPM in Washington. It will be quite difficult.

Telephone manufacturing companies, in order to apply the *A-10 preference rating on a "repair" order* for an operating telephone company must endorse the following statement on the original and all copies of purchase orders or contracts for materials needed to fill the operating companies' needs (a responsible official, duly designated, must make the endorsement): *"Purchase Order for Material required to fill a duly rated order for Repair or Emergency Inventory. This purchase order bears Preference Rating A-10 under Preference Rating Order P-22."*

The *defense supplies rating* plan was developed to meet the problem of some defense manufacturers who, because they must start production in advance of receiving defense orders, must have assistance to secure a steady flow of materials into their plants. This plan is available to manufacturers who can clearly identify the *proportion* of their production which is defense work. Individual applications must be made to OPM before the defense supplies rating is issued, for the simple reason that the proportion would vary with each applicant. Thus, a telephone manufacturer who is engaged 75 per cent in defense work can, if he meets all requirements, get a preference rating which he may apply to deliveries of 75 per cent of his required materials. Hundreds of manufacturing concerns have been granted the use of this plan.

In the case of a concern such as the telephone manufacturing concern, it may take several weeks before it is awarded. The rating commonly depends on quarterly checking of production and would cover purchases over the coming three-month period, after which a recheck of production might increase or decrease the ratio of the defense rating.

Telephone manufacturing companies may apply for *individual preference certificates* on the Form PD-1, the same as operating companies. In general, wherever priority rights have been established, suppliers *must honor orders* submitted to them according to the priority rating assigned.

In General. However, if a supplier is loaded up with A-10 orders he can delay filling A-3 or A-10 orders according to their rank. Of course, the party seeking the priority can shop around for another manufacturer who is not so loaded up, if that is practical.

Priority orders generally apply to materials which are under priority control or included in the 300-odd items on the so-called "critical list." This list includes virtually all materials in which shortages have so far become apparent. It includes "telephones; all special service types, radio and equipment;" also, "switchboards, power, complete assembly." It also includes all service types of "wire."

Companies which had already entered orders for materials which would be qualified for A-10 rating under "repairs," before that order was handed down September 9, are not entitled to retroactive benefit of the priority rating. They may, however, become automatically entitled to the rating by simply cancelling the original orders and entering new ones.

Where applications for priorities are necessary, the questions generally asked are how, what, when and where. Of these, "when" is by far the most important. Unless you require materials *now* do not expect a high rating. If you require materials to be used three months from now but are otherwise qualified, OPM may give you a "B-2" rating (which is meaningless for priorities but does get your request on the record) and when you actually need the materials OPM will move you up to a higher rating.

COMING CONVENTIONS

Arkansas Telephone Association, Arlington Hotel, Hot Springs, September 22 and 23.

Association of American Railroads, Telephone Section, Hotel Gibson, Cincinnati, Ohio, September 23, 24 and 25.

Telephone Pioneers of America, General Assembly, Hotel Stevens, Chicago, September 25, 26 and 27.

South Dakota Telephone Association, Hotel Carpenter, Sioux Falls, October 8 and 9.

United States Independent Telephone Association, Hotel Stevens, Chicago, October 14, 15, 16 and 17.

Independent Pioneer Telephone Association, Hotel Stevens, Chicago, October 16.

Canadian Independent Telephone Association, King Edward Hotel, Toronto, October 15 and 16.

Virginia Independent Telephone Association, Hotel Roanoke, Roanoke, October 23 and 24.

North Carolina Independent Telephone Association, Pine Needles Inn, Southern Pines, October 27 and 28.

South Carolina Independent Telephone Association, Lafayette Manor, Myrtle Beach, November 3 and 4.

Florida Telephone Association, New Florida Hotel, Lakeland, November 7 and 8.

Missouri Telephone Association, Hotel Muehlebach, Kansas City, November 12 and 13.

Alabama Independent Telephone Association, November 13 and 14.

Tennessee Independent Telephone Association, Hermitage Hotel, Nashville, November 17 and 18.

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By DANIEL SEITZ
Cable Superintendent,
York Telephone & Telegraph Co., York, Pa.

Approved Maintenance Practices

PART VII. Suggestions for installing buried wire are given in this article of a series written for the plant man. It points out ways to avoid future trouble when this type of construction is used. (Part VI was published September 6.)

THE USE of a new type rubber-insulated buried wire to replace open wire construction in certain rural areas is often economical and desirable when only a minimum number of circuits are required. Poles that are unsightly or are a hazard to traffic may be eliminated by the use of this buried wire construction. Buried wire may also be used to advantage in furnishing service to airports and similar locations where poles are considered dangerous.

It is not the intent of this article to discuss the comparative costs and merits of aerial lines and buried wire construction methods, but rather to point out ways to avoid future trouble when the buried wire type of construction is used. This type of plant, if properly installed, usually causes less trouble than open wire lines during lightning, wind and sleet storms. However, when trouble does occur, special means of locating it must be employed. Repairs to buried wire can usually be made quickly and economically if proper material and equipment are available.

It is important that installations be planned so that buried wire will not be disturbed by maintenance or construction of roads, tree planting, fence building, and other roadside operations. Buried wire is generally located within the road right-of-way by a permit from the road authorities which does not prevent a highway repair crew from damaging the line during grading operations.

Wires are usually placed from six to 12 inches away from the shoulder of the road toward the ditch and should always be buried to a depth adequate to prevent damage from any ordinary highway maintenance operation.

The selection of a route across private property is also important to prevent damage being caused to buried wire by farm machinery. It is also important to make a permanent record of the location of buried wire as the visual evidence of trenches soon disappears. It never pays to trust to one's memory. Instead, make a permanent record indicating the buried wire location with relation to various permanent landmarks.

Photographic records of buried wire locations as shown in *Fig. 5* prove valuable. Stone markers were placed on this line at each turn and even though they become covered with earth they can be found more easily by the aid of photographs. Photographs taken immediately after the trench is dug will, in most cases,

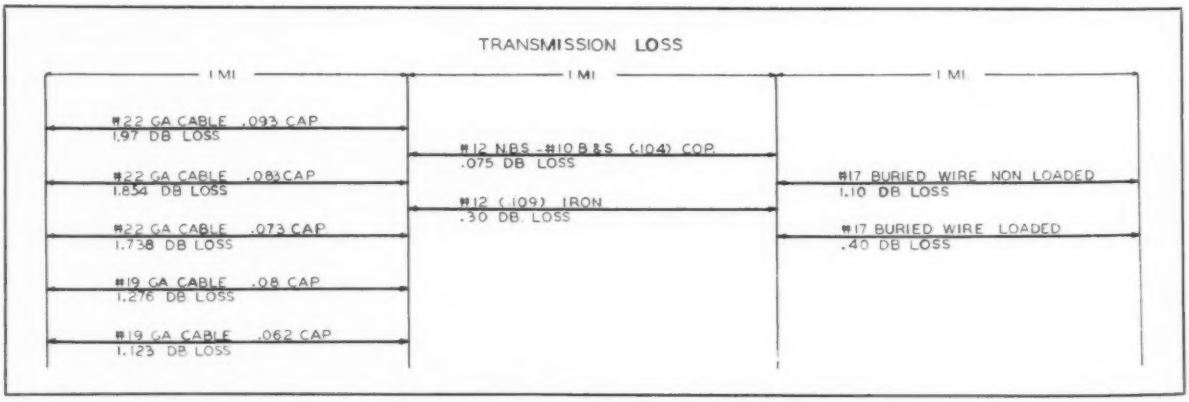

Fig. 1. This chart indicates the transmission loss in cable, open wire, and buried wire which will be found useful for calculating total loss of a complete line.

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Fig. 2. Overhead buried wire connection showing fuse protector mounted in wooden box.

indicate just where the wire is buried by the disturbed earth.

Before starting construction, the transmission equivalent of buried wire should be carefully considered. Lines often consist of cable, open wire—either copper or iron—together with a length of buried wire. A chart indicating the transmission loss in each of the above units of line which will be found useful for calculating the total loss of a complete line is shown in *Fig. 1.*

Complicated and expensive transmission measuring equipment is not necessary for the proper planning of a successful buried wire line. The values shown by the chart are for new wire in each case and some allowance should be made for any part of the circuit which may have been in service several years.

The cable section and the buried wire are not likely to show much, if any, increase in attenuation with age. Neither does copper open wire depreciate materially even after long service. It is generally considered safe to assume that ordinary iron wire, not including the splices, will increase in transmission losses approximately 25 per cent before it must be renewed because of rust.

The maximum loss naturally occurs during the latter portion of the useful life of the wire. For the first several years, service will not show an appreciable increase in the transmission losses when a good grade of galvanized wire is used.

When the making of adequate records has been neglected and buried wire must be located to make repairs or to bring location records up-to-date, this may be accomplished by using the gadget being carried by the man in *Fig. 6.* This instrument has many uses in the telephone plant.

The man in the picture is holding an ordinary exploring coil such as is used for locating cable trouble. A wireless or woodpecker tone is connected to one end of the buried wire and ground. It is not necessary to hold the exploring coil close to the ground because the tone can be heard as much as 15 feet above the buried wire. As the distance is increased between the exploring coil and the buried wire, the silent area increases proportionately in width.

The method of determining the approximate depth of the buried wire below the surface from the width of the silent area is shown in *Fig. 7.* One-half the width of the silent area will approximate the depth of the wire below the surface.

The depth cannot be determined with absolute accuracy because the tone increases in volume gradually, starting on either side of the silent area and increasing in volume for several feet until the maximum is reached.

Where there are no extraneous noises to interfere with the audibility of the tone, the depth of the wire can be determined to within a few inches. The coil should always be held in the position shown with the "V" shape pointed downward, although it may be used in a horizontal plane with fair success.

Fig. 4. Wire looped in and out in same trench providing a test point and avoiding a splice along highway.

The use of this method to determine the exact location of the buried wire will often prove advantageous in avoiding damage to the wire when excavation for other utilities, such as water and gas lines,

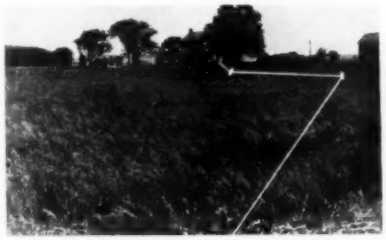

Fig. 5. Photo record of wire across private right of way.

are being constructed, especially when this work is being done by power digging machinery.

This method can also be used to locate water and gas pipes in the same manner as explained for locating the buried wire. When plowing-in wire, especially in the proximity

Fig. 6. Locating buried wire where no location records were available.

of shallow pipes, the tester will prove valuable in locating the pipe, then hand trench around it in order to avoid damage.

Lightning protection for buried wire is extremely important. A pole with equipment suitable for making the connection from overhead to buried wire is shown in *Fig. 2.* The box mounted on the pole is for housing the protector. The conduit serves to protect the twin wire from mechanical injury and sun.

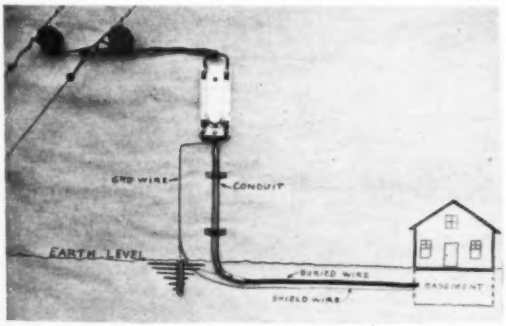

Fig. 3. Buried wire installation between open wire and subscribers' premises.

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This type of wire should never be exposed to direct sunlight for a long period of time as it will deteriorate rapidly from such exposure. The insulated portion of the wire inside terminal boxes should be painted with a good grade of standard black lacquer.

A metal shield extending eight feet above ground is placed over the conduit to provide mechanical protection. This shield is not an absolute necessity although it costs very little and is generally considered desirable.

Where the overhead line is not exposed to power circuits, but may be affected by lightning, fuses may be eliminated, but carbon blocks should always be used. In every case where protectors are required in connection with buried wire, it is very important that the ground terminal be connected to the shield wire and also to a ground rod if the shield wire does not provide a sufficiently low resistance ground connection.

A typical open wire to a subscriber's station buried wire installation, including shield wire and ground wire arrangement is shown in schematic in *Fig. 3*. The No. 14 bare shield wire is buried with the twin line wire for protection against lightning and induced voltages. Shield wires are important and must be placed in the ditch with the twin wire of the main line, also with the loops to subscriber's station.

Note particularly that the end of the conduit extends below the ground level and is graded to drain any moisture that might find its way into the pipe and cause trouble by crushing the twin wire by freezing in cold climates. Note also how the conduit ground rod and shield wire are all bonded together for lightning protection.

The standard arrangement as practiced by your company should be followed in locating the protector either inside or outside the building. In all cases, protect the wire above ground by using conduit and extend the shield wire to the ground terminal of the protector.

The white line in *Fig. 4* indicates the location of the buried wire which has been run from a pole in the distance. In this case, the wire was looped into the airport buildings to avoid a splice where the lateral run left the highway. The loop method also provides a test point inside the building. Approximately 100 feet of additional wire was required by this arrangement, but it is believed that the benefits warrant the expenditure.

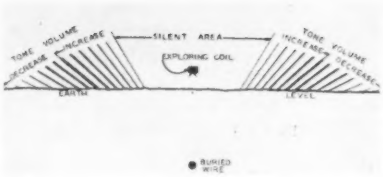

Fig. 7. Areas where the tone can and cannot be heard above the buried wire.

No special tools or equipment are necessary for making a simple buried wire installation of the type shown in *Fig. 3* where an ordinary farm plow was used to start the trench which was then made the proper depth by hand digging. Labor costs make hand trenching prohibitive for long buried wire runs, although equipment is available for plowing the wire in at a rapid rate of speed. Hand work is not required except at terminal poles, short radius turns, and at the start of each run.

The following tools and equipment will be required for plowing-in wire in addition to those commonly used in the telephone plant:

Wire Plow
Sleeves for splicing the twin and shield wire
Sleeve-crimping tools
Rubber pads for insulating splices
Vulcanizer for insulating splices
6-volt storage battery (used to heat vulcanizer)

When plowing-in a run of two or three circuits, the ends of each pair should be tied to a stake or terminal pole separately to avoid damage because of the pull caused by the wire unwinding from the reels. Do not wrap the shield wire over the pair when snubbing it as this may damage the insulation. Always avoid splices, when possible, on account of the cost and possible future trouble. Looping the wire through conduit at terminals will avoid many splices.

Fig. 8 shows an exposed branch line connected to the buried wire through a fused protector. This protector, housed in a weatherproof mounting, also serves as a test point in the main line. This arrangement is intended for one circuit only. Note that the conduit extends well into the weatherproof housing of the protector.

A terminal suitable for looping the main line buried wire and connecting a subscriber's buried loop is shown in *Fig. 10*. Note the shield wire also parallels the loop for protection. The conduit size will vary with the number of pairs required and it should be large enough to permit easy entrance of the wire. The bushings on the ends of the pipe will prevent chafing during the pulling-in operation if reasonable care is exercised.

Conduit size requirements for risers are indicated as follows:

For 1 pair in and out—½ in.
For 2 pairs in and out—¾ in.
For 3 pairs in and out—1 in.
For 4 pairs in and out—1 in.

To provide additional protection from rodents, in localities where such extra precaution seems advisable, buried type wire may now be obtained with the added metallic protection of two .010 in. bright steel tapes spiralled in reverse directions over rubber insulation of the usual diameters. A saturated paper tape is placed over the steel tapes and a paraffin finish applied.

(Please turn to page 26)

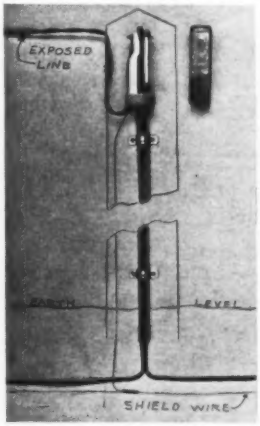

Fig. 8. Protector for exposed line and providing looping in main line.

Fig. 9. Three pair looping terminal and connection through arrester to exposed line.

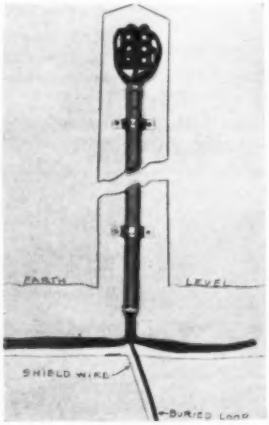

Fig. 10. Looping terminal with buried loop connection. Terminal housing not shown.

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Convention Interest To Center ON DEFENSE, PRIORITIES

WHAT PORTENDS to be one of the most important and interesting meetings of telephone executives ever held will take place next month when the United States Independent Telephone Association holds its 45th annual convention in Chicago, October 14, 15, 16 and 17, at the Stevens Hotel.

The theme of the convention—or at least the focal point of interest and discussion — will center around the telephone industry's position in national defense and its priority status.

For various reasons, but mainly because the convention will serve as a laboratory and clearing house for the recommendation of the procedure which both operating and manufacturing companies should follow in meeting the defense demands made of them under a not too favorable priority position, attendance at the convention is expected to shatter all records.

Many other current problems confronting the industry—such as complying with complex and burdensome accounting systems, meeting wage and hour requirements, endeavoring to maintain efficient service under mounting expenses with inadequate incomes, eliminating inductive interference, encroaching trend of socialistic centralized regulation — will come in for their share of study.

There are many critical problems facing the telephone business today which need immediate attention and thorough discussion, and a procedure of action should be formulated so that the industry can maintain its enviable record of furnishing the best possible telephone service—even in a trying emergency.

Particularly is this true in the case of national defense, with the government making so many demands on the industry while at the same time some governmental bureaus are making unwarranted attacks on the industry.

It goes without saying that every Independent telephone company, large and small, should see to it that it has representatives at this year's national convention, not only to add to the general discussion their suggestions resulting from personal experiences, but to take home with them ideas and information which will aid in the operation of their companies in the difficult days of the future.

There is only one sure way for the industry to maintain its unparalleled record and that is to continue to render efficient and dependable service no matter what obstacles present themselves. This alone will do more than anything else to stay the biggest and always present threat to the industry—that of government control in the present emergency.

The annual national convention—where ideas, experiences and recommendations of thousands of operating men and manufacturers are exchanged, discussed and congealed —is perhaps the most important single function of the Independent industry in safeguarding the unrivaled public service standards which it has established under private enterprise and personal initiative.

Therefore, for the good of their own companies, and the industry as a whole, it behooves Independent telephone men and women to attend next month's convention.

Among the speakers will be Francis X. Welch, TELEPHONY'S Washington correspondent, who will give a thorough discussion on the industry's position in national defense and its priority status; Clyde Bailey, the association's Washington representative who will report on the activities of his office and the recent NARUC convention; Lt. Col. William C. Henry, liaison officer between the Independent telephone industry and the U. S. Signal Corps, who will explain the various ways the industry is cooperating with the army and navy.

FRANCIS X. WELCH, Washington, D. C., will be one of the featured speakers at national convention next month.

Also on the program will be two speakers of national note who will give addresses on vital problems facing the country in the present emergency.

In addition there will be reports by the following special association committees: Toll compensation committee, E. M. Blakeslee of Madison, Wis., chairman; national defense coordinating committee, President Carl Brorein of Tampa, Fla., chairman, and wage-hour committee, John H. Agee, Lincoln, Neb., chairman.

One session of the convention will be given over to group conferences by the association's standing committee as follows:

Accounting, led by Chairman C. E. Archer of Tampa, Fla.; commercial, headed by Chairman J. T. Carliss of Marion, Ohio; plant, under the direction of Chairman F. E. Behm,

(Please turn to page 24)

By RAY BLAIN
Technical Editor

QUALIFIED cable splicers are just about the most resourceful men you will find in any class of work anywhere. I remember one difficult case of wet aerial cable trouble when we tried all known methods of testing and could not obtain a positive location.

A slight leak was indicated on all pairs although no lines were permanent on the switchboard. This splicer finally located the trouble by feeling along the lead sheath until he found a warm spot caused by the passing of current through the wet insulation to the sheath. We have since made use of this method several times to advantage.

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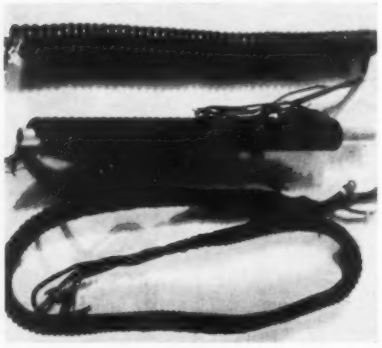
The accompanying photograph shows three different types of retractable telephone cords now in common use and



which appear to be giving complete satisfaction. When this type of cord was first introduced, telephone men in general shared the opinion that their trouble-free life would be comparatively short; however, this seems to have been disapproved by actual service tests.

I have used one of these cords on my telephone for over two years and it continues to give perfect service and, from all appearances, is still in good condition.

These cords are easily extended from six to seven times their normal 11-inch contracted length. They are always ready to contract again to a neat, out-of-the-way form. Due to their compactness these cords do not easily tangle with objects on the desk such as ink wells which usually cause so much trouble. It seems entirely probable that this type of cord will be used extensively on the telephones of the future.

* * *

It is a pleasure to note that there is now available a soldering iron holder which may be set to regulate the temperature of a soldering iron and have it ready for immediate use at all times with tin on the tip. The desired idle temperature is obtained by an adjustment screw. This arrangement not only extends the life of a soldering iron considerably, but will also, without doubt, avoid much trouble often caused by attempting to solder with an iron not properly heated.

* * *

It is noticed of late that with the general increase in telephone traffic there is a more general use everywhere of conductor cables of larger size and smaller gauge. This practice permits a decided increase in the capacity of the cable plant without making a change in the conduit system. Improved transmission qualities of modern telephone instruments permit the use of smaller cable conductors under all normal conditions.

* * *

Numerous changes in stations and duties have been made recently in Signal Corps officers of the army who are well known to the telephone industry. Col. ROGER B. COLTON, of the Signal Corps Laboratories at Fort Monmouth, N. J., has moved to Washington, D. C., where he is in charge of the material branch, office of the Chief Signal Officer. COL. JAMES A. CODE is now in charge of the administrative control division in the Chief Signal Office and COL. G. I. BACK is on duty in the signal section, GHQ, in Washington, D. C.

* * *

W. S. PEDLEY, of Highway Trailer Co., informs us that he recently had the pleasure of visiting the Bell toll cable construction job between Omaha and Cheyenne. He states that this job is well ahead of schedule and is going along fine.

* * *

Enjoyed a pleasant visit with BILL McILVANE, general sales manager, Copperweld Steel Co., while he was in Washington recently on defense matters.

Best Story of the Week—What's Yours?

A business clerk at the Waterbury (Conn.) Republican recently received a classified ad over the telephone. The voice at the other end asked:

"How much?"

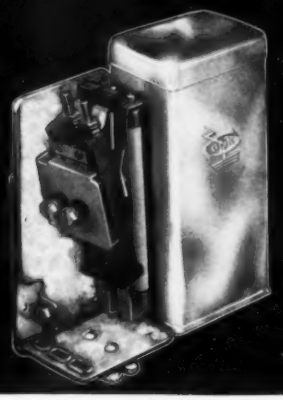
"Sixty cents," replied the clerk.

A pause, and then—"ding, dong, ding."

"Okay. There it is, I just dropped it in the coin-box."

The clerk was left to figure out the procedure for securing the ad money from the telephone company.

XUM



SOMETHING NEW

. . IN SUB-STATION PROTECTOR DESIGN

THE ONLY sub-station protector with an air gap arrester* on both the instrument and line side of the fuse, thus providing dual protection.

The only sub-station protector with a demountable protector unit facilitating quick repair, replacement, and removal from idle party lines.

The only sub-station protector built of steel and Bakelite, thus eliminating the possibility of ceramic breakage.

The only sub-station protector with a "standard" protector unit which is interchangeable with related protection equipment, such as pole cable terminals, open wire drain arresters, and central office main frames.

The only sub-station protector with completely grounded hood, bracket, and frame.

These and many other exclusive features have been incorporated in the new Cook Type R Sub-station Protectors—Type RO for outside installation and Type RI for inside use.

All these improvements are available to you at prices comparable with ordinary sub-station protectors.

Order a sample today for inspection at no obligation.

Sold by all telephone equipment manufacturers and supply houses.

**A heavy bronze blade to carbon gap of .010" spacing for grounding heavy sustained power line shorts is placed on the line side of the fuse. The Cook Tru Gap is located on the instrument with .007" spacing for static drain.*

LOOK FOR COOK

at the Convention. Suite 2532-A Stevens Hotel, October 14-17. See the Trans-Mount System panorama—a dramatic visualization of improved telephone protection and economy!

COOK ELECTRIC COMPANY

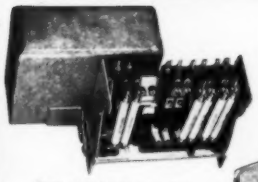
2700 SOUTHPORT AVENUE • CHICAGO

EQUIPMENT COVERED BY U. S. LETTERS PATENT NUMBERS 2,171,351; 2,223,539 and 2,223,540.

The Type H Protector Unit, already in wide use throughout the communications industry is the standard protector unit used in all Trans-Mount System apparatus divisions, providing the first and only completely interchangeable, completely standardized system of telephone protection and distribution.

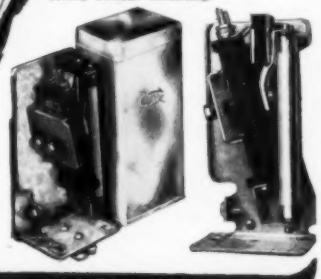
Type T Main Distributing Frame and Central Office Protector Mounting for the protection, distribution and cross connection of paper wrapped lead covered cables. No silk and cotton switchboard cable tip is required. Both primary and secondary protection are provided. Furnished in 26, 52, and 104 pair units.

Type S-20 Pole Cable Terminal and Protector Mounting. Combining every possible feature of convenience and accessibility for installation, servicing and maintenance. Expertly engineered and ruggedly constructed to give maximum satisfaction.



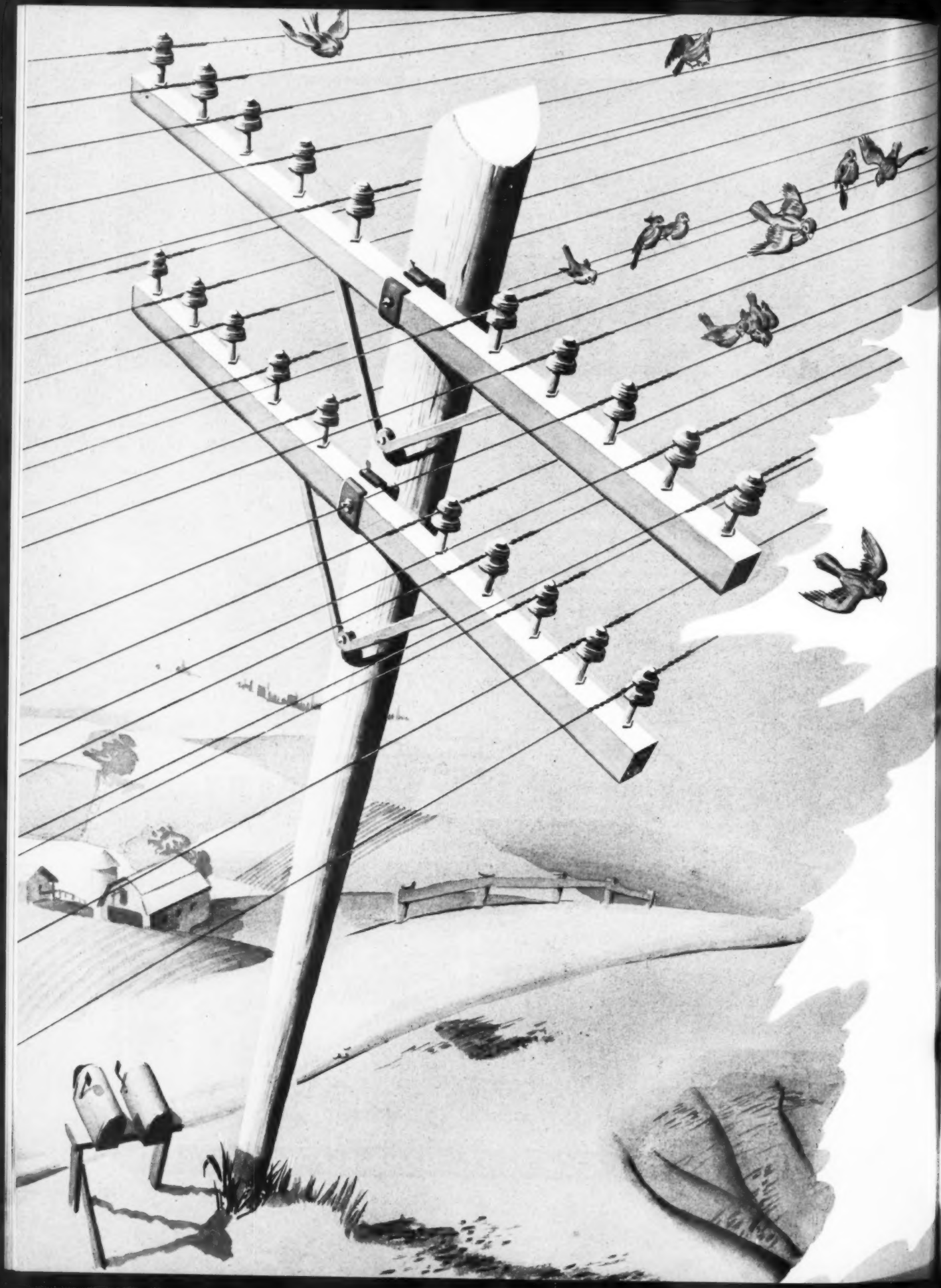
Type U Utility and Sub-Station Protector Mounting. Provides protection for small cables and open wires up to 5 pair per unit at railroad crossings and power line crossovers and parallels. Compact, convenient. Mounting bracket so arranged that base unit may be brought to a horizontal position to facilitate wire connections.

Type RO and RI Sub-Station Protector Mounting for two applications. Type RO for outside mounting on post, wall, etc., equipped with bracket and Endurite coated weatherproof hood. Type RI furnished without the hood for inside or weather protected outside mounting.



THE *TRANS-MOUNT SYSTEM* OF PROTECTION AND DISTRIBUTION

XUM



When fall winds start to blow...

During the days of early fall, when autumn winds sing through the wires and birds start heading south, telephone men begin thinking of the sleet and snow to come.

It's a mighty fine time to thoroughly check over your outside plant—to make it shipshape in every detail for the coming strains of winter weather.

Such time is well spent. And when you replace old poles and crossarms—put in new sections of wire—or mount new insulators in place of those broken and cracked—be sure to use high-grade, long-lasting products, the kind you get from American Automatic.

Because if there is an outstanding fact about the telephone business, it is this—that to use good, sturdy, dependable merchandise means money in your pocket in the long run. And if you order from us, that's the only kind of merchandise you'll get—and you won't pay a premium for it, either. May we hear from you?

BLACK BEAUTY AND TAYLOR COLQUITT POLES; WHITALL TATUM AND HEMINGRAY INSULATORS; HUBBARD AND LINE MATERIAL POLE LINE HARDWARE; KLEIN PLIERS AND SAFETY BELTS; MONOTYPE DROP WIRE; STANDARD UNDERGROUND CABLE; NICOPRESS TOOLS AND SLEEVES; ETC., ETC.

ERICAN AUTOMATIC ELECTRIC SALES COMPANY

1033 West Van Buren Street, Chicago, Illinois

Warehouses at: Richmond, Chicago, Kansas City, Dallas, Los Angeles and San Francisco

Distributors in U. S. and Possessions for:

AUTOMATIC ELECTRIC

ORIGINATORS AND DEVELOPERS OF STROWGER STEP-BY-STEP MACHINE SWITCHING AUTOMATIC DIAL SYSTEMS

Makers of Telephone, Signaling and Communication Apparatus
Electrical Engineers, Designers and Consultants
Export Distributors: AUTOMATIC ELECTRIC SALES COMPANY, LIMITED, Chicago

XUM

The Operator's Corner

By MAYME WORKMAN
Traffic Supervisor
The Illinois Telephone Association

THE OPERATOR who handles a long distance call times it, and whose ticket is used for billing is responsible for the accurate timing of the call. When another operator also attempts to time the call, particularly when one operator uses a mechanical timing device and the other operator enters the start and finish of conversation on the ticket as shown by her clock, frequent differences in timing will usually result.

If an operator is assigned to the responsibility of timing a long distance call, she should be permitted to assume this responsibility. Ordinarily the timing will be accurate. The few exceptional cases of incorrect timing can be satisfactorily adjusted if called to the operator's attention.

Having two operators time the same call is a duplication of work and a wasted effort. The time used in performing this unnecessary work can be used to much better advantage in giving proper supervision to established connections, prompt answers to incoming signals, subsequent ringing, etc.

To time a call accurately, the operator must be on the line to determine when conversation starts. The start of conversation time differs depending upon the class of call and whether the calling party is on the line. For example, on a station-to-station call, if the calling party is on the line, conversation is considered started at the first word spoken by the called station. However, if the calling party is *not* holding the line and the call is announced to the called station, conversation is not considered started until there is an exchange of words between the called and the calling station.

On a person-to-person call, conversation is considered started when there is an exchange of words between the called party and the calling station. There are some variations, for example, on a person-to-person call where the calling party is holding the line, when the called station answers the calling party, recognizing the voice of the called party, immediately proceeds with his conversation and may talk 10 or 15 seconds before the called party responds. In this case, the operator is instructed to stamp the start of conversation on her ticket as soon as she is aware that a message is being transmitted.

Every operator who is responsible for the timing of long distance calls should be certain that she understands when conversation is considered started.

Stamping the ticket promptly at the finish of conversation is equally as important as stamping the start of conversation at the proper time. These two actions determine the amount of the toll charge.

There is one other item in connection with timing long distance calls that is vitally important and that is, proper supervision of calls on which common battery supervision is not received; that is, calls on which the long distance operator does not receive a signal when the calling party hangs up his receiver. For example, calls originating at a ringdown tributary exchange or at a rural station.

To assist the operator in the accurate timing of calls on which switchhook supervision is not received, the use of "sleeves" is prescribed. A sleeve is placed over the listening key with the white end up as a reminder to monitor at intervals of one minute during the initial period. When the initial period has expired, and conversation is still in progress, the sleeve is placed on the listening key with the red side up to remind the operator to supervise the connection at 15-second intervals.

The usual five-second timing allowance is extended to 15 seconds on calls on which switchhook supervision is not received.

There should be very few cases of inaccurate timing if operators have a correct understanding of when conversation is considered started; if they are on the circuit when conversation starts; if they give proper supervision to the connection, and stamp off the ticket promptly at the finish of conversation.

Questions from Illinois Operators

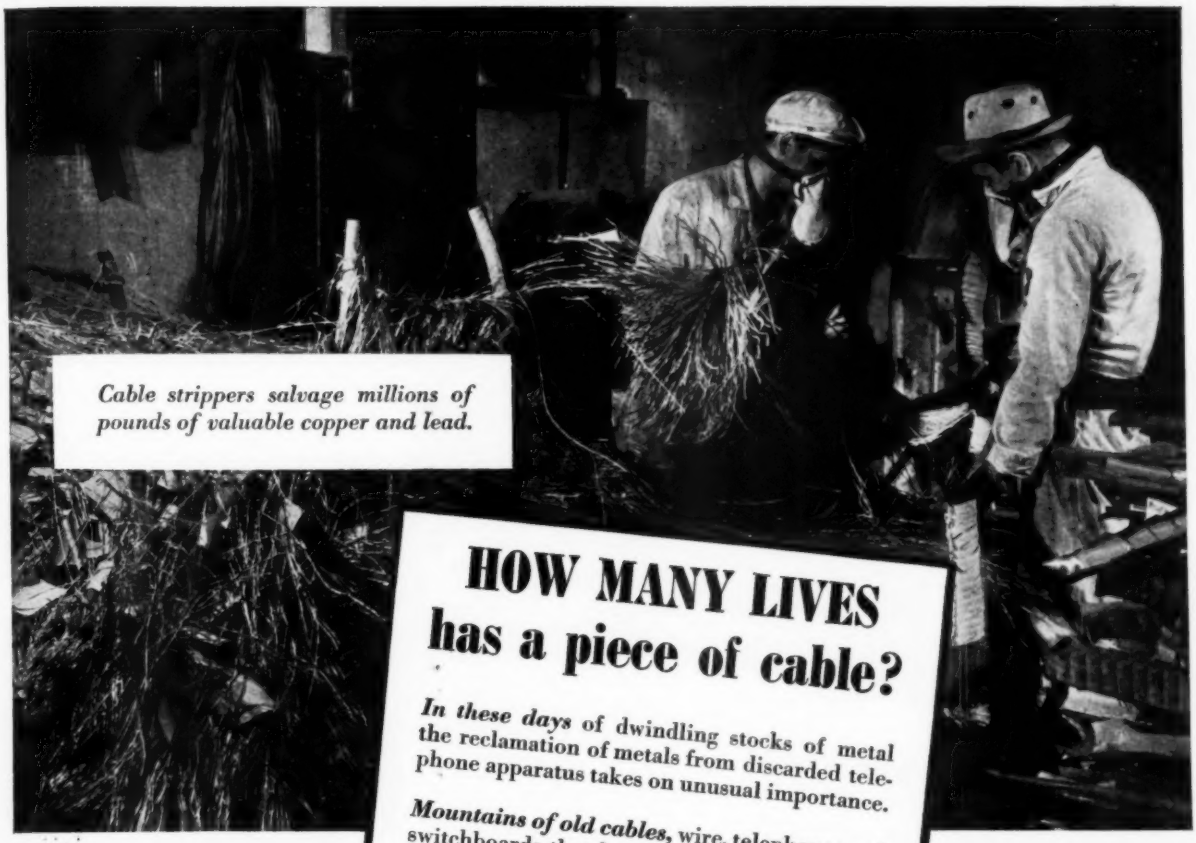
1. When the calculagraph has stamped a started conversation but the wrong number or party has been reached, a line is drawn through the stamp. Is it necessary to enter an explanation on the back of the ticket?
2. Should code letters be passed out to subscribers?
3. On a collect ticket, who times the ticket?
4. Should a report charge be made if an operator gives out any information?
5. Why are there so many mistakes made in timing toll tickets when they are handled by two or more operators?

The answers to these questions are presented on page 38.

▼ ▼

NLRB Orders Labor Election

The National Labor Relations Board has ordered an election to be held by September 28 among employes of the Southwestern Associated Telephone Co., with headquarters at Lubbock, Texas, to vote for or against the International Brotherhood of Electrical Workers (AFL). The election will include traffic employes at the exchanges in Allred, Brownfield, Denver, Haskell, Lamesa, Post and Segraves, Texas.



Cable strippers salvage millions of pounds of valuable copper and lead.

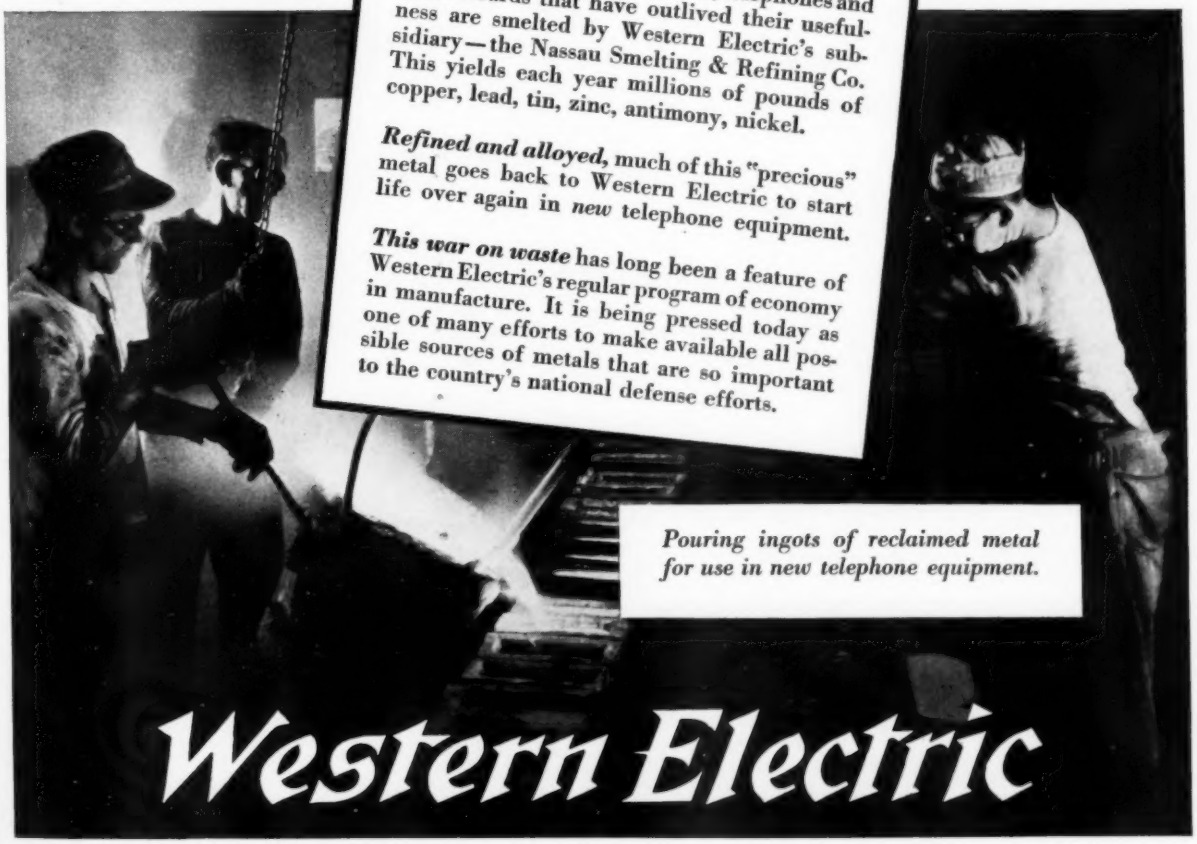
HOW MANY LIVES has a piece of cable?

In these days of dwindling stocks of metal the reclamation of metals from discarded telephone apparatus takes on unusual importance.

Mountains of old cables, wire, telephones and switchboards that have outlived their usefulness are smelted by Western Electric's subsidiary—the Nassau Smelting & Refining Co. This yields each year millions of pounds of copper, lead, tin, zinc, antimony, nickel.

Refined and alloyed, much of this "precious" metal goes back to Western Electric to start life over again in *new* telephone equipment.

This war on waste has long been a feature of Western Electric's regular program of economy in manufacture. It is being pressed today as one of many efforts to make available all possible sources of metals that are so important to the country's national defense efforts.



Pouring ingots of reclaimed metal for use in new telephone equipment.

Western Electric

45th ANNUAL CONVENTION

of Independent Telephony

STEVENS HOTEL — Chicago — Oct. 14-15-16-17

● *Every alert telephone man will try to be there because from past experience he knows*

it's a fine place to renew acquaintances and see old friends. Convention time also affords an opportunity to learn about the latest news from Washington, the priority situation and all problems common to the telephone business.

Then too, don't forget the banquet, entertainment and dance; the Manufacturers' exhibits.

Help your company, your subscribers and yourself by attending . . . bring yourself up-to-date.

ALL INDEPENDENT PEOPLE ARE CORDIALLY INVITED

UNITED STATES INDEPENDENT TELEPHONE ASSOCIATION

616 SO. MICHIGAN AVE. CHICAGO, ILL.

Convention Interest On Defense

(Concluded from page 17)

Lincoln, Neb. and traffic, led by L. F. Shepherd, Madison, Wis.

President Brorein, Executive Vice President Louis Pitcher and Secretary-Treasurer Charles C. Deering will make their annual addresses at the opening session of the convention on Tuesday, October 14.

The annual conference and dinner for state association executives will be held the evening of October 14.

The annual business meeting of the Independent Pioneer Telephone Association will take place on the morning of October 16, while the Pioneer banquet, entertainment and dance, which has been a feature of national conventions for years, will be held the evening of October 16.

The luncheon and style show for visiting ladies will again be held in the Walnut Room of Marshall Field's department store at 12 o'clock, Wednesday, October 15. Members of the ladies' entertainment committee are:

Mrs. E. C. Blomeyer, chairman, Chicago; Mrs. Carl D. Brorein, vice-chairman, Tampa, Fla.; Mrs. G. B. Foscue, Chicago; Mrs. F. R. McBerty, Galion, Ohio; Mrs. H. T. McCaig, Mrs. A. Parlett, Jr., and Mrs. Louis Pitcher, all of Chicago.

The terms of the following directors expire this year and their successors will be elected at next month's convention:

J. H. Agee, Lincoln, Neb.; W. L. Cook, Chicago, Ill.; B. L. Fisher, Martinsville, Va.; A. N. Johns, San Francisco, Calif.; R. A. Lumpkin, Mattoon, Ill.; F. R. McBerty, Galion, Ohio; R. A. Phillips, Sioux City, Iowa; Louis Pitcher, Chicago, Ill.; J. R. Porter, Tarboro, N. C.; R. E. Williams, Fort Wayne, Ind., and John H. Wright, Jamestown, N. Y.

▼ ▼

Iowa District Meetings

The Iowa Independent Telephone Association announces that it will hold a district meeting at Mount Ayr on Thursday, September 25, and one at Woodward, Friday, September 26.

XUM

Now YOU CAN *Stop* THAT INSULATOR BREAKAGE

The Western Union Rubber Insulators—which Continental is licensed to manufacture exclusively, are making the high cost of glass insulator breakage and reinstallation, past history for telephone and telegraph lines. Field installations in all parts of the country have demonstrated their excellent insulating qualities under the most severe conditions—high humidity and heavy fog—they really do the job. They were originated, tested and proved by Western Union—Continental providing exactly the correct rubber compound for the purpose. The folder-bulletin tells the story and gives the facts, exactly as you would want to have them. Write for it the next thing you do.

CONTINENTAL RUBBER WORKS
ERIE, PA., U. S. A.

WRITE FOR THIS SPECIAL BULLETIN

WESTERN UNION *Rubber* INSULATORS

Pay Station Service in the BUS STATION

Speed and convenience are essential to modern transportation and communication

The telephone pay station places speedy telephone service at the immediate disposal of the traveler.

Statistics show unusually high returns from Bus Station pay stations and other localities convenient to the traveling public.

Check your territory today!

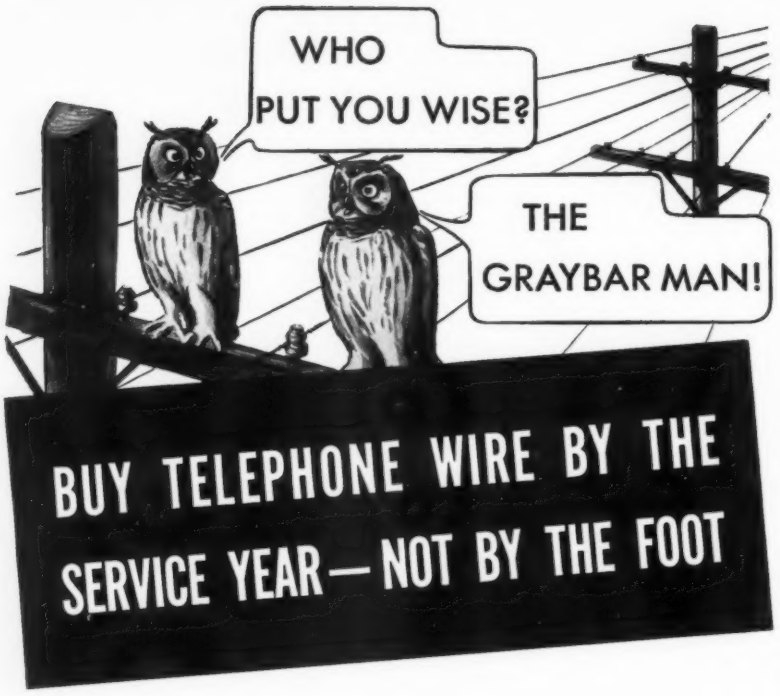
Photo courtesy of The Mansfield Telephone Co.

the **GRAY MFG. CO.**

AUTHORIZED AGENTS:
American Automatic Electric Sales Co. Graybar Electric Co. Kellogg Switchboard and Supply Co. Leich Sales Corp. The North Electric Mfg. Co. Stromberg-Carlson Telephone Mfg. Co.

IN CANADA: Canadian Telephones & Supplies, Limited. Northern Electric Co., Limited.

XUM



It's wise to put *quality* first – to buy Whitney Blake telephone wire for every service from drop and outside distributing wire to inside, duct and central-office jumper wires.

When you get the inside story, it's crystal clear why "WB" wires pass all tests of time and weather -- they must first pass more than 15 factory tests *to make sure they can take it.* Because only good stuff goes in – you get more out. Take **INSULATION** for example: Regardless of application, insulation standards are rigidly maintained. All rubber compounds have a minimum content of 30% pure rubber. Whitney Blake insulation has "muscle" to withstand crushing strain created by clamps – and proper anti-oxidents to *prevent premature old-age.*

via GraybaR

Whitney Blake Telephone Wires are sold exclusively through GRAYBAR offices in more than 80 principal cities. This dependable service assures that whatever you need is quickly available for your regular requirements or on emergency orders.

FREE BOOKLET

Write now for Booklet T-40 which contains complete information on "WB" telephone wires – uniform high quality and long service life for more than 40 years. Graybar Electric Co., Graybar Bldg., New York, N. Y.

GraybaR QUALITY *Everything Electrical* GraybaR ELECTRIC COMPANY

Maintenance Practices

(Concluded from page 16)

Steel tape covered wire does not require a ground wire to be buried with it, but the following grounding precautions should be observed. At each splice a jumper wire should be soldered to the steel tape to assure a continuous electrical circuit. Also at each pole line end where connection is made to the open wire, a jumper wire should be soldered onto the steel tape and connected to the ground system.

From information gained by experience, it would seem that most trouble is caused while the wire is being installed due to strain placed on the wire where obstructions are encountered. Wire plowed into shale may cause trouble later when the disturbed shale crushes the insulation by pressure caused while tamping the loose earth into the ditch.

Hand trenching around obstructions and through heavy shale is generally recommended. Although this method may seem costly, it will be cheaper than locating and repairing trouble later. Every precaution should be exercised to avoid injury of the wire during the plowing-in process.

Continuity test equipment carried on the plow will give an alarm when an open occurs and as each section is plowed in an insulation test should be made which will indicate solid or high resistance shorts and ground.

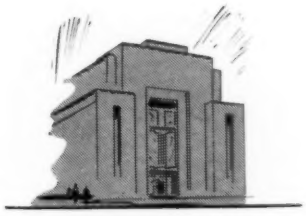
There is no way of knowing when or where termites, gophers, or rodents will attack the wire and cause trouble; therefore, loop terminals spaced not more than one mile apart for convenient testing and localizing trouble are recommended.

The installations of two or more pairs should be looped through terminals as shown in *Fig. 9.* Terminals in weatherproof housing having two or four pairs of binding posts are available and afford a convenient means for looping the main lines and connecting aerial or buried wire loops.

▼ ▼

Attendance at the annual convention of the United States Independent Telephone Association, October 14-17, at Hotel Stevens in Chicago, will pay you dividends. Don't miss it!

How a great Utility protects its Records



WITHOUT PUBLIC UTILITIES our broad national defense program would come to an abrupt halt. And without its valuable day-to-day operating and engineering records a utility would be badly crippled. See, in Remington Rand's new Safe-Cabinet sound-movie film, how Public Utilities can bring *certified* protection to their records while at the same time they become vastly more efficient "*machinery of management*" tools providing increased production with decreased operating costs.

A MILLION DOLLARS A DAY—that's the title of a new sound-movie developed in cooperation with Remington Rand research engineers by a leading industrial film concern. It tells the story in a fascinating, dramatic, highly interesting 30-minute presentation of fires' ravenous daily toll—"*a million dollars a day*"—and how Public Utilities can help reduce this dreadful drain on our national resources. ***Be sure to use the coupon below!***

Remington Rand Inc.

BUFFALO • NEW YORK

OFFICES EVERYWHERE

Lowell Thomas tells a Story

***You'll want to* SEE *and* HEAR!**

Make arrangements to have your executive staff and department heads—from 5 to 500—see this thrilling expose. There is no charge or obligation. The coupon at the right will bring you a free prospectus and full details. Mail it today.

Remington Rand Inc.
Dept. T-941
Buffalo, New York

Please send me your free prospectus outlining the sound-film "A MILLION DOLLARS A DAY".

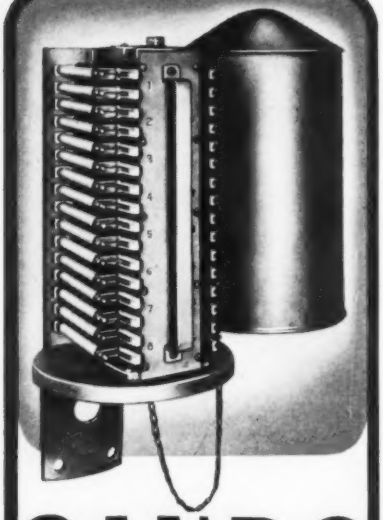
Name .....

Utility .....

Address .....

City & State .....

XUM



SANDS

TYPE 35 PROTECTED CABLE TERMINAL

For 11, 16, and 26 Pair Cables

Name the features that telephone men want most in a protected terminal. You'll get them all in a Type 35—including the SANDS self grounding and automatic resetting discharge block.

This block (Sands Type 2105) is standard on all SANDS protective equipment. With it, protection lapses are banished, maintenance costs are cut.

Write today for information.

Distributors in U. S. and Possessions.
AMERICAN AUTOMATIC ELECTRIC SALES COMPANY
1033 West Van Buren Street, Chicago, U.S.A.

AUTOMATIC ELECTRIC

TELEPHONE, SIGNALING, AND COMMUNICATION APPARATUS

STATE COMMISSION EXPERT RAPS BOOTH'S MEMORANDUM

TELEPHONY has received the following communication from Edgar Womble, rate expert of the North Carolina Utilities Commission. Mr. Womble takes exception to a memorandum left with the Federal Communications Commission by Harry R. Booth upon leaving the employ of that organization to become associated with OPACS. In his memorandum, which was discussed by Francis X. Welch in the August 23 issue of TELEPHONY, Mr. Booth recommended closer centralized regulation of the telephone industry by the FCC.

"The Federal Communications Commission did a fine job in getting a $45,000,000 reduction from the A.T. & T. Co. on its interstate toll business recently," states Mr. Womble, "and the bally-hoo of Harry R. Booth, about this achievement is all well and good —but there is serious objection to Booth's backslap at state commissions in these words:

" 'Stacked up against the regulatory accomplishments of the FCC, state commission regulation makes a pretty poor showing. Although interstate revenues hardly exceed 15 per cent of the total revenues of the Bell System, it is doubtful whether the total annual intrastate reductions (for the whole country) in the past seven years exceed the annual reductions in interstate revenues. State commissions, on the record, simply have not been able to cope adequately with the telephone rate-making problem.

'In determining how the Communications Act should be changed with respect to telephone companies, public interest should be the guiding principle. We should not quibble over encroachments or extensions of state or federal rights, respectively. The states should not insist upon their jurisdiction if, as a result of centralized control, public interest would better be served.' "

[EDITOR'S NOTE: *The foregoing two paragraphs are not Mr. Booth's exact words, but are part of a resume of his report by Mr. Welch.*]

"This gratuitous and unwarranted statement about state commissions, as far as it relates to North Carolina is pure bunk," continues Mr. Womble, "and indicates that Mr. Booth is grossly ignorant of a subject in which he would appear to enlighten the nation or that he threw truth to the winds in order that he might give color to his crude propaganda in the interest of centralized utility control.

"Now let's get down to the North Carolina comparison.

"On January 1, 1940, the United States had a telephone population of 20,830,950, while in North Carolina the number of telephone population was 198,495, or 1 per cent of the total.

"On this basis, North Carolina, to have equalled the work of the FCC, would have had to effect a saving of $450,000 annually. Well, North Carolina has equalled this figure and more, for the reductions made in 1936 and since, through the efforts of the North Carolina commission, are saving North Carolina on an annual basis of more than $600,000.

"In addition to the reductions in telephone service the North Carolina commission has secured reductions in electric rates since 1932 which have saved the state $76,198,876. Last year alone the cost saving was $21,682,955, or about half of what the FCC saved for the people of the *entire nation* on telephone service."

▼ ▼

Oklahomans to Meet September 26 at Stilwell

National defense projects as they affect the telephone industry, is one of the tentative subjects for discussion at the district telephone meeting of the Oklahoma Telephone Association to be held at Stilwell, September 26, according to Secretary H. W. Hubenthal.

Among features definitely scheduled are: "Association Activities," by C. E. Devin, Apache, Okla., president of the association. "Developments in the Telephone Industry," by E. D. Hicks, Tahlequah, Okla., telephone pioneer. "Address of Welcome" by Jeff D. Atkerson, president of the Stilwell (Okla.) Chamber of Commerce. "The Value of Telephone Service from the User's Standpoint," by Judge W. A. Woodruff, Stilwell. Problems relating to construction and maintenance of telephone properties also will be discussed.

John Holt, owner of the Stilwell Telephone Co., is host for the meeting. J. W. Walton, vice president of the Oklahoma Telephone Co., Broken Arrow, Okla., will be toastmaster.

XUM

COPPERWELD

NON-RUSTING

GROUND RODS and CLAMPS

The present emergency conditions are demanding more and more telephone service with an inevitable demand for more Copperweld telephone products. We are doing our best to produce all the Copperweld products that can be turned out of our mill and to overcome the scarcity of copper and steel, machinery, and trained men. Copperweld's men are working to the very limits of endurance and will be grateful for your continued cooperation.

FOR dependable ground connections that you can drive, cover up, and safely forget use Copperweld ground rods, either with the economical pigtail connections illustrated above or with dependable Copperweld clamps. Either method will assure you copper-to-copper connections. There are no dissimilar metals in contact under the ground—no electrolytic corrosion. Your ground connections are permanent, safe and dependable.

COPPERWELD STEEL COMPANY
GLASSPORT, PENNA.

Build Goodwill and Revenue
WITH THIS SMALL
P·A·B·X

Key type telephones, such as the one shown above, plus this compact switching unit, provide automatic intercommunication combined with fast trunk service at low cost.

This system — the 32A — serves up to six stations and is just the thing for residences and small offices where an attended system is impractical.

EARNINGS TOO LOW?

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AUTOMATIC ELECTRIC
TELEPHONE SIGNALING AND COMMUNICATION APPARATUS

Conference on Soldier-Sailor Reduced Rate Plan

Members of the Federal Communications Commission and of the National Association of Railroad and Utilities Commissioners held a conference September 11 to discuss the proposal that rates be reduced for long distance service during week-ends and evenings for soldiers and sailors at Army encampments and Naval bases. The proposal to reduce such rates 25 per cent was originated by Richard J. Beamish, member of the Pennsylvania Public Utility Commission, who was also present at the conference.

After an all-afternoon session it was decided to hold another conference in order to ascertain more facts to determine whether the plan would be in the best interests of national defense, considering that reduced rates would likely cause tremendous operating difficulties. It is thought calls would swamp the telephone circuits from camps and hamper the efficiency of telephone service in the present emergency.

▼ ▼

A. T. & T. Authorizes $90,000,000 Bond Issue

The board of directors of the American Telephone & Telegraph Co. recently authorized the filing with the Securities & Exchange Commission of a registration statement and prospectus relating to an issue of $90,000,000 of 35 Year 2¾ per cent debentures, due October 1, 1976, which the company proposes to sell to obtain funds for the redemption on November 1, 1941 of its 20-year sinking fund 5½ per cent gold debenture bonds, due November 1, 1943 and presently outstanding in the amount of $94,306,000.

The company is requesting the commission to expedite the registration statement to enable the company to solicit competitive bids for the purchase of the proposed issue at an early date.

▼ ▼

Woodford Appointed A. T. & T. Chief Engineer

L. G. Woodford, assistant vice president, American Telephone and Telegraph Co., has been appointed chief engineer of the company, effective immediately, it was announced September 12.

Since July, 1940, Mr. Woodford has been in charge of the company's department of operation and engineering in the absence, on leave, of Vice President W. H. Harrison, now in Washington as director of the production division of the OPM.

A native of Waterloo, Iowa, Mr. Woodford began his telephone career in Des Moines in 1911. After experience in the commercial and plant engineering departments of the Iowa Telephone Co., he was appointed appraisal engineer of the Northwestern Bell Telephone Co., with headquarters at Omaha, Neb., in 1915. From 1921 to 1923 he was engineer of costs and practices for the Northwestern company.

In the latter year he joined the department of operation and engineering of A. T. & T. at New York. There he became plant inventory and costs engineer in 1927, plant extension engineer in 1933, operating results engineer in 1937, plant operation engineer in 1939, and in 1940 was appointed to the post of assistant vice president.

▼ ▼

Commonwealth Telephone Stock Offered

An underwriting group headed by Bonbright & Co., Inc., recently offered 16,071 shares of Commonwealth Telephone Co. $5 cumulative preferred stock. Of the total, 13,071 of the new shares are subject to prior rights of those holding the company's $6 cumulative preferred stock. The shares are priced at $103.50 and accrued dividends.

▼ ▼

Wage-Hour Bookkeeping Rules Revised

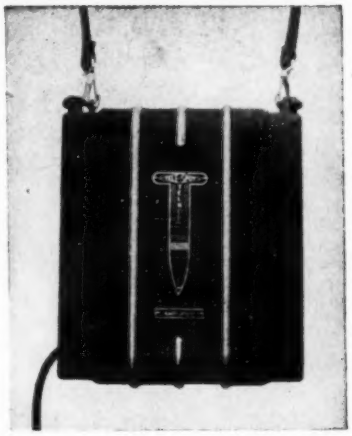
The Federal Wage and Hour Administration has issued a release, effective September 15, making revisions in the bookkeeping rules in connection with the Wage and Hour Law.

One revision permits employers, paying on a semi-monthly basis, to keep a record only of daily instead of weekly earnings. Some employers who petitioned for this change said the recording of weekly as well as daily and semi-monthly earnings was a costly bookkeeping burden.

In addition, provision is made to allow employers with special problems to keep their records in any manner found satisfactory to the administrator. Those wishing to deviate from the general rules must petition the administrator.

Although executive, administrative, and professional employes, and outside salesmen, are not under the wage-hour law, the new regulations require that a record be kept of the total wages or salaries paid them each pay period and show the basis on which such wages or salaries were paid. Current regulations require only recording of the name, address, and occupation of such employes.

TELE-SPOT



The new machine for locating faults on aerial telephone lines, without the necessity of climbing poles . . . also locates buried cable, water and gas pipes or wiring in the walls of buildings.

Equipment consists of: amplifying unit, exploring coil and line tapper, three 40 inch lengths of bakelite tubing, containing wiring to coil and communication lines for line tapper. Amplifier contains loud speaker.

Telephone men are displaying great interest in TELE-SPOT. May we send you additional information?

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BETTER TRANSMISSION

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CRAPO HTL-85, with more than 60% greater tensile strength than standard B.B. wire, permits spans of 225 feet in heavy loading, 375 feet in light loading districts; provides stronger, safer spans on existing lines.

CRAPO HTL-135, with two and one-half times the strength of B.B. wire, makes possible spans of 350 feet in heavy loading, 500 feet in light loading areas.

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GENERAL ELECTRIC

XUM

An excellent crowd attended the recent New York district meeting in Rhinebeck. Photographed at the banquet are the following (left to right): P. O. MOYNAHAN, general appraisal engineer, New York Telephone Co.; A. R. MacKINNON, secretary, New York State Telephone Association; C. C. CHAPPELL, president, Orange County Telephone Co.; M. S. TREMAINE, comptroller, New York State; P. H. TROY, chairman of the board, Red Hook Telephone Co.; B. H. CRAVEN, general commercial manager, New York Telephone Co.; R. E. COON, Poughkeepsie, New York newspapers; H. C. SHEARS, superintendent, Vanderbilt Estate, and F. H. FLORENCE, SR., president, Highland Telephone Co.

New York Association Holds District Meeting

Two hundred and forty telephone men and women attended the district meeting of the New York State Telephone Association held July 24 at Rhinebeck, N. Y.

At the suggestion of the Red Hook Telephone Co., host of the meeting, a unique schedule was planned and carried out. Business sessions were held in the morning. The afternoon was given over to golf, and tours of historical places along the Hudson.

A. R. MacKinnon, executive secretary of the New York association, was in charge of general plans for the conference and led the men's meeting, while John Troy, manager, Red Hook Telephone Co., was responsible for the local arrangements.

Miss Julia Diehl of the Orange County Telephone Co., had charge of the ladies' meeting. She led the discussions and many questions were asked by the delegates. Much important information was attained by those present. Two outstanding topics were: (1) the new changes in rates, and (2) toll credit cards.

Both of the business meetings were held at the Town Hall—then all groups gathered at the Beekman Arms. This hotel, the oldest in America, was taken over completely for the day, by the Red Hook company. Luncheon was served and a brief welcoming speech was given by Peter H. Troy, chairman of the Red Hook company. He spoke of the cooperation among the Independent companies, and commented upon the assistance always given so willingly by the New York Telephone Co. Mr. Troy then introduced several of the guests who spoke briefly, among them being Benjamin Craven, general commercial manager, New York Telephone Co.; Charles Chappell, president, Orange County Telephone Co.; Maurice Tremaine, comptroller of the State of New York and Mr. MacKinnon.

In the afternoon the men left to inspect the three exchanges of the Red Hook Telephone Co., and enjoy an afternoon of golf at the Red Hook Country Club.

Before luncheon some of the ladies visited the Vanderbilt estate which has been taken over by the government. In the afternoon all the ladies were taken in two buses to visit the beautiful Ogden Mills mansion, now maintained as a museum by the State of New York. After this, they were entertained at tea at the home of Helen T. Troy, president of the Red Hook company, who was assisted by Frances D. Troy, treasurer of the Red Hook company.

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XUM

Commissions and Courts

Ohio Bell Telephone to Increase Capital

On September 4, the Ohio Bell Telephone Co. filed with the secretary of state's office a certificate of amendment to its articles of incorporation to increase its authorized capitalization from $150,300,000 to $200,000,000. The purpose of filing the certificate of amendment was made necessary, it was explained by Randolph Eide, president of the company, because of the national defense program and the resulting increase in the tempo of general business, and industrial operations. Due to this trend of affairs, Mr. Eide said the company will spend $10,000,000 more for expansion and improvements than had been originally anticipated.

The president of the company, in explaining the increased amount to be spent for expansion, said the national defense program had placed the company's business on a "fire alarm basis," and that an unprecedented demand for new telephone service and additional facilities is being experienced.

▼ ▼

Wisconsin Firm Closes Daleyville Exchange

The Mt. Horeb Telephone Co. has been authorized to discontinue its Daleyville, Wis., exchange and connect subscribers direct to Mt. Horeb, the Wisconsin Public Service Commission announced September 8.

Approximately 50 persons had protested the action. Conferences between the subscribers and telephone company failed to produce a workable plan for continuing the Daleyville exchange, the commission said. The branch had been operating at a loss.

▼ ▼

Okla. Commission Denies Service Charge Petition

The Oklahoma Corporation Commission, in an order on September 2, denied the application of Ted Scott, of the Canute Telephone Co., Canute, Okla., for authority to make a service connection charge of $1.50.

The commission found that on the basis of 10 or 15 new installations per year, the average of past experience of that company, an increase of from $15 to $20 per year would be realized in revenues if the installation charges were authorized and providing there was no decrease in new service connections.

An installation charge probably would discourage new telephone installations and might eventually necessitate an increase in rate schedules. The Commission stated that although revenue figures furnished by the company at the hearing indicated a net annual loss to the exchange, part of the operating expenses represent salaries to Mr. Scott as manager and to his wife as switchboard operator.

▼ ▼

Summary of Commission Hearings and Rulings

Federal Communications Commission

August 28: Application filed by the American Telephone & Telegraph Co., N. Y., for authority to supplement its existing facilities by constructing, between Reedsville and Manitowoc, Wis., for a distance of about 15 miles, two 104 copper wires.

August 28: Application filed by the Chesapeake & Potomac Telephone Co. of Va. and the American Telephone & Telegraph Co., N. Y., for authority to supplement existing facilities between a point 3.5 miles east of Leesburg, Va., and Clarks Gap, Va.

Illinois Commerce Commission

September 6: Hearing at Springfield on the application of the Illinois Bell Telephone Co. in the matter of third supplemental petition for authority to lease certain telephone facilities in Ottawa, from the American Telephone & Telegraph Co. as set forth in terms and conditions stated in lease, etc.

September 17: Hearing on application of the Southwestern Bell Telephone Co. regarding the proposed advance in rates for service in Belleville, East St. Louis, Edgemont, Freeburg, Granite City and New Athens, as stated in rate schedules filed by the company. (Protests and objections were filed by the International Hod Carriers local union No. 459, Belleville, the citizens of Freeburg and the retail merchants association.)

September 17: Hearing on application of the Fayette County Mutual Telephone Co. in the matter of proposed advance in rates for telephone

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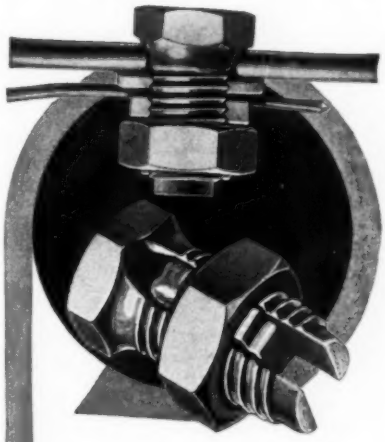

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service in Brownstown (Sefton Lines), Fayette county, stated in rate schedule I. C. C. No. 1 rendered by the company.

September 17: Hearing on application of the St. Paul Telephone Co. regarding the proposed advance in rates for telephone service in St. Paul and vicinity, as stated in rate schedule I. C. C. No. 3 rendered by the company.

September 17: Hearing on application of the Illinois Central Telephone Co. in the matter of proposed advance in rates for telephone service in Bunker Hill.

September 24: Hearing on proposed telephone rate cut between the Lawndale-Crawford and Berwyn areas of the Illinois Bell Telephone Co.

Indiana Public Service Commission

September 8: Petition filed by Eastern Indiana Telephone Co. of Winchester for permission to investigate the company's property at Dunkirk, to substitute full automatic dial system for the common battery and magneto service now in use, and to increase the rates as follows:

Business main line from $2.00 to $2.25; business rural, party line from $1.50 to $1.75; residence main line, $1.50 to $1.75; residence (town) party line, $1.25 to $1.50; residence (rural) party line, $1.25 to $1.50. The hearing date has not as yet been set.

September 23: Petition filed by the Foster & Covington Cooperative Telephone Co. to sell its telephone system to the Fountain Telephone Co. of Covington, and to abandon the exchange now maintained by the sellers in the town of Foster.

September 29: Hearing on application of the Central Indiana Telephone Co. of Sheridan for increased rates.

Michigan Public Service Commission

September 16: Hearing on application of Michigan Bell Telephone Co. for investigation of intrastate toll rates. Continued from August 15 to this date.

Nebraska State Railway Commission

September 9: Application filed by Nebraska Continental Telephone Co. of Columbus for authority to increase rates at its Ord exchange, contingent upon changing service to complete common battery and constructing a new exchange.

September 25: Hearing on application of the Bertrand Telephone Co. for validation of an issue of $3,000 of notes.

Ohio Public Utilities Commission

September 13: Application filed by the Telephone Service Co. for authority to make certain revisions regarding the securities of the Archbold Telephone Co., the Napoleon Telephone Co., the Northwestern Ohio Telephone Co. and the Swanton Home Telephone Co.

September 26: Hearing on the application of the Ohio Associated Telephone Co. for permission to revise rates at the Scott, Yorkshire and North Star exchanges.

September 30: Continued hearing on application of the Ohio Associated Telephone Co. to abandon service to the Christman Hotel in Bryan.

Oklahoma Corporation Commission

September 2: Application denied Ted Scott of the Canute Telephone Co. for permission to make a service connection charge of $1.50.

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EQUIPMENT CO.
LAWRENCEVILLE — ILLINOIS

September 23: Hearing on application of the Southwestern Bell Telephone Co. for permission to disconnect its toll lines from the exchange board formerly operated by B. I. Dearing at Louis, Harmon county, and establish temporary toll stations there.

September 23: Hearing on application of C. M. Tuggle for permission to discontinue his telephone exchange at Cold Springs and serve subscribers there through his Roosevelt exchange, also to make a re-adjustment of rates.

Pennsylvania Public Utility Commission

September 29-30: Further hearings in the cut-off case of the Pennsylvania Telephone Corp., Johnstown, upon order of the superior court at Pittsburgh. The court directed the company to discontinue its practice of terminating local telephone conversations at the expiration of six minutes.

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Illinois District Meetings Called Off

Because of heavy traffic loads and the rapid turnover in operating forces, district meetings planned by The Illinois Telephone Association for this fall have been cancelled. After conferring with some of the managers and chief operators, it was found that many of the companies would be unable to send any employes to district meetings because of the work entailed in training new operators and also because of frequently arising emergencies.

Mrs. Mayme Workman, traffic supervisor, will be ready to help out wherever her services can be utilized and any Illinois exchange desiring her assistance should contact The Illinois Telephone Association, 516 E. Monroe Street, Springfield.

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Three District Meetings Set for Ohio

To discuss the many new and complex problems of the telephone industry, the Ohio Independent Telephone Association has scheduled three district meetings, the first to be held at Hudson, Thursday, September 25; the second at Kenton, Thursday, October 2; the third at Circleville, Wednesday, October 29.

Each of these conferences will start at 12 noon with a luncheon.

▼ ▼

6 Per Cent Tax Imposed On Subscribers

The House of Representatives passed on the afternoon of September 16 the federal defense tax legislation, imposing a 6 per cent tax on telephone bills, which was reported out by the congressional conference committee on Monday, September 15.

In the original bill the House imposed a tax of 5 per cent on bills for local telephone service, to be paid by subscribers, excluding installation charges and coins deposited in coin-operated telephones.

The Senate increased the tax on telephone bills to 10 per cent and made several other revisions in the House bill.

The congressional conference committee, in ironing out differences between the House and the Senate, compromised on a 6 per cent tax on local telephone service instead of the 5 per cent recommended by the House and the 10 per cent imposed by the Senate bill.

The telephone industry and its subscribers can consider themselves fortunate to get off with 6 per cent tax. The lowering of the tax from the Senate's 10 per cent level is the direct result of strenuous opposition conducted by Executive Vice President Louis Pitcher and Washington Representative Clyde Bailey of the United States Independent Telephone Association who were ably supported by other members of the association.

It is estimated that through the effort of the national association executives the reduction in the tax results in a saving of approximately 45 million dollars annually to telephone subscribers.

Other items in the tax bill of interest to the telephone industry are as follows:

The tax agreed upon for long-distance calls was five cents for such a call when the charge is more than 24 cents but not more than 50 cents, and five cents for each 50 cents or fraction thereof from 50 cents upward.

On telegraph, cable or radio messages, the tax will be 10 per cent, with a similar tax on leased wire, teletypewriter or talking circuit special service. Also a tax of 5 per cent was voted for wire and equipment service, but not including burglar alarm or fire alarm service.

The original House tax on radio time sales, which was eliminated by the Senate, was dropped by the conference committee.

It is expected that the Senate will have passed the tax bill by the time this issue of TELEPHONY is released. As soon as a copy is obtainable of the complete bill, as passed by the House and Senate, it is understood the national association will send instructions to member companies as to the application of the provisions of the tax bill.

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TELEPHONE SIGNALING AND COMMUNICATION APPARATUS

XUM

"Telephony's" Engineering Data

By J. Ernest Hartz

Index, Underground Conduit Construction. September 20, 1941. No. 4-B, page 12.

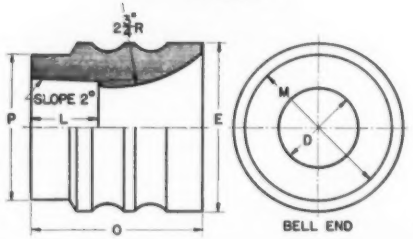
Conduit and Materials (Continued)

Fibre Conduit

	BENDS	D	1½"	2"	2½"	3"	3½"	4"
R—18"	90°	E in.	34	34				
		G "	16	16				
	45°	E "	31	31				
		G "	23	23				
R—24"	90°	E "	35	35	35			
		G "	11	11	11			
	45°	E "	31	31	31			
		G "	20.5	20.5	20.5			
R—36"	90°	E "	38	38	38	38	38	38
		G "	2	2	2	2	2	2
	45°	E "	31	31	31	31	31	31
		G "	16	16	16	16	16	16
	ELBOWS							
R		inches	8.25	9.5	10.5	13	15	16
E		"	14.25	15.5	16.5	19.25	21.25	22.5
F		"	9.5	10	10.5	11.5	12.5	13.25
G (approx.)..		"	6	6	6	6.25	6.25	6.5
T—All bends and elbows.		"	.375	.40	.425	.45	.475	.50

Other Fittings:

End bells for use at conduit terminals in manholes, at buildings, etc. End bells provide a wide radius flare which facilitates cable bending and protects the cable sheath from abrasion. They are available for conduit sizes one-inch to four-inch inclusive. The standard tooling is Harrington joint for duct connection.



"Telephony's" Engineering Data

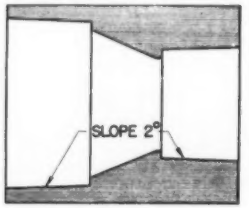
By J. Ernest Hartz

Index, Underground Conduit Construction. September 20, 1941. No. 4-B, page 13.

Dimensions of Harrington Joint End Bells

Size	1"	1½"	2"	2½"	3"	3½"	4"
D	1 1/16"	1 5/8"	2 1/16"	2 9/16"	3 1/16"	3 5/8"	4 1/16"
E	2 1/16"	3 1/16"	3 1/16"	4 1/16"	5 1/16"	5 3/4"	6 5/8"
L	1"	1 3/8"	1 1/2"	1 3/8"	1 3/4"	1 3/4"	2"
M	2 1/2"	2 1/8"	3 1/16"	3 1/8"	4 1/2"	5 1/16"	5 3/4"
O	3 1/2"	3 1/2"	3 1/2"	4"	4"	4"	4"
P	2 1/2"	2 1/8"	3 1/16"	3 1/8"	4 1/2"	5 1/16"	5 3/4"

Reducers from one size conduit to another are available in all combinations from one-inch to four-inch inclusive. The standard reducer is Harrington joint at both ends. Sizes and types of conduit, joints, etc., to be connected, must be specified in detail.



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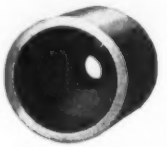
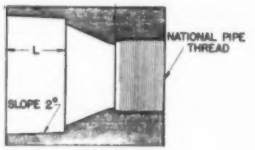
"Telephony's" Engineering Data

By J. Ernest Hartz

Index, Underground Conduit Construction. September 20, 1941. No. 4-B, page 14.

Adapters from metal pipe to fibre conduit are available in all combinations from one-inch to four-inch, inclusive. The standard adapter is Harrington joint at the fiber end and threaded for metal pipe size specified, at the other end. Adapters can be supplied straight bore for unthreaded metal pipe or undersize for "self threading." Sizes and types of connections must be specified.





Fibre plugs to close the ends of ducts temporarily during construction, etc. Available for all sizes of conduit.

Fibre bushings, solid or split are available for all conduit sizes.

Kellogg Concludes Labor Agreement

Officials of the Kellogg Switchboard & Supply Co. met in Washington, September 4 and 5 with officials of the International Brotherhood of Electrical Workers, Local No. B-713 and the International Association of Machinists, District No. 8, representing the American Federation of Labor, before the National Defense Mediation Board, to conclude a contract signed by all parties on May 19 of this year. This conference was for the purpose of setting up wage classifications and wage scales applicable thereto.

These negotiations have been carried on in a very amicable manner during which time there has been no labor trouble of any kind, neither has there been any threat of strike or shut-down, announces the company.

Louis B. Sauer, vice president in charge of manufacturing, stated that all parties concerned have expressed satisfaction over the result of these negotiations which culminated in a contract running for one year.

In May the company granted a wage increase of 10 per cent, vacations with pay, double-time for Sundays and holidays, together with extra compensation to employes working on night shifts.

▼ ▼

John Winn Leaves North Electric

It has just been learned that John Winn, well-known telephone man, severed his connection with the North Electric Mfg. Co., Galion, Ohio, on August 1. It is understood that Mr. Winn will continue to reside in Galion for the present, as he finds the location convenient for his outside interests and for rendering consulting services to Independent telephone companies.

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South Carolinans to Meet at Myrtle Beach

The annual convention of the South Carolina Independent Telephone Association will be held on November 3 and 4 at the Lafayette Manor, Myrtle Beach, S. C., according to H. L. Draper, secretary of the organization.

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MacGillis & Gibbs Company, Milwaukee, Wis.—Northern White and Western Red Cedar Poles. Plain or butt-treated. Immediate quotations on request.

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Valentine Clark Corporation, 2516 Doswell Ave., St. Paul, Minn.—Finished Cedar Poles. Plain or butt-treated.

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Stromberg Carlson No. 896 4-bar 1000 or 1600 ohm ringer compacts with short arms $9.25—5-bar	10.75
Kellogg No. 2800 type 4-bar 1000 or 1600 ohm ringer compacts with short Arm	9.25
Kellogg No. 729 Oak finish Central Battery Hotel sets with Straight line ringer and booster coil	6.75
Kellogg No. 118 desk set (Central Battery) with No. 404 Steel bell box equipped with Straight line or 16-33-50 or 66 cycle ringer and booster coil	7.50
Western Elec. No. 80B repeating coils.	4.25
Stromberg Carlson No. 9A Talk through repeating Coils	1.25
Kellogg No. 1031-1042 Listening and double ringing Keys on No. 1026 Ech.	2.75
Kellogg No. 8A Talk through type repeating Coils	.85
Kellogg No. 115 Desk type Grabaphone with 3 Cond. cord less signal set	4.50

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Delivery can be made promptly. Please give code numbers of any equipment you are interested in.

Write for prices.

BUCKEYE TELEPHONE and SUPPLY COMPANY
COLUMBUS, OHIO

New Structure Planned by Ohio Company

The Citizens Telephone Co., of Circleville, Ohio, recently announced plans for the construction of a new $45,000 central office building in that city. Work on the building will begin immediately, C. Dee Early, manager of the company, stated, with plans calling for completion of the structure by early September.

Telephone company engineers have completed plans whereby the operations of the telephone exchange may proceed normally during the construction of the new building. The business office, switchboard and operators' quarters will be on the first floor; central office equipment and the wire chief's department on the second floor with the accounting and general offices occupying the remainder of the space. The basement will be used as a workshop and showroom. Showers and restroom facilities for employes will also be located in the basement.

In addition to the improvements planned for the central office, the company is also working on a construction program which includes cable replacements and other outside plant improvements.

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Answers to Questions On Page 22

1. Yes. An explanation should be entered on the back of the ticket.
2. No. They should be used in dealing with operators but not customers.
3. If the call is handled on a single ticket basis, the operator at the originating office will time the call. If it is handled on a two-ticket basis, the operator at the terminating office will time the call.
4. No.
5. The answer to this question will be found in the preface.

Attendance at the annual convention of the United States Independent Telephone Association, October 14-17, at Hotel Stevens in Chicago, will pay you dividends. Don't miss it!

New Style Pocket Detecto-Meters
Voltage .0 to 1.5.
Resistance .0 to 10,000 ohms.
With zero adjust.
$10.75 STEWART BROS.
Ottawa, Ill.

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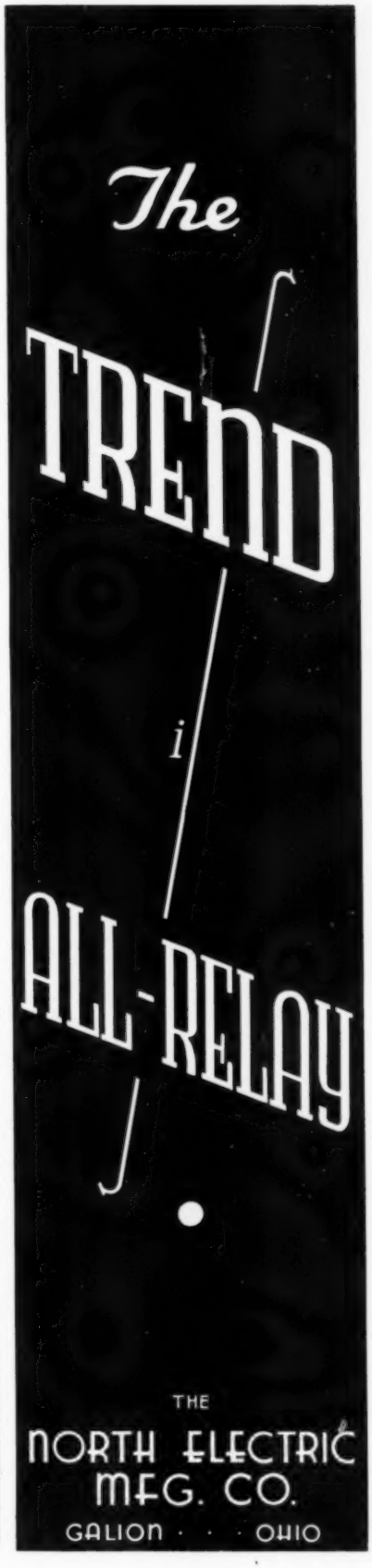

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